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THOMASVILLE THOROUGHFARE PLAN

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Raleigh, N. C.

November 20, 1969

The Honorable H. A. Carpenter, Jr., Mayor
Members of the City Council
Members of the Planning Board
City of Thomasville
Thomasville, North Carolina

Re: Thomasville Thoroughfare Plan

Gentlemen:

We are pleased to submit this text on the Thomasville Thoroughfare Plan which was prepared under our mutual agreement of June 15, 1964.

We appreciate the fine cooperation extended us during the conduct of the study.

Sincerely,

Billy Rose

Billy Rose
Asst. State Highway Administrator

THOROUGHFARE PLAN
THOMASVILLE, NORTH CAROLINA

Prepared for the
City of Thomasville

by the
Advance Planning Department
of the
North Carolina State Highway Commission

in cooperation with the
Bureau of Public Roads
of the
United States Department of Transportation

November 20, 1969

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I. INTRODUCTION

Any urban community is heavily dependent upon a good highway and street system for the efficient and economical movement of persons and goods. It is necessary that such a system not only meet existing travel demands, but also that it keep pace with the development of the urban area. This report sets forth a system of thoroughfares to serve the anticipated traffic and land development needs of Thomasville through the year 1990.

The thoroughfare system proposed for the Thomasville urban area was developed following the basic principles of thoroughfare planning as described in Chapter II of this report. Thoroughfares were located based upon detailed analyses of existing and anticipated land development, existing and anticipated travel demands, existing streets, and topographic conditions. Only improvements which are felt to be essential for proper traffic circulation within the present planning period are advocated. More improvements would constitute an unnecessary expense—less could lead to traffic congestion.

Some of the proposed improvements will be the responsibility of the State Highway Commission, while the City will be responsible for other improvements. With the different governmental units involved in developing the thoroughfare system, coordination is of prime importance. Thus, it is desirable that the plan be formally adopted by both the local governing body and the State Highway Commission to serve as a mutual, official guide in the development of the thoroughfare system streets.

In order for the plan to be effective, it will be necessary to procure in advance or to protect by various legal controls the rights-of-way necessary for the improvements which will be ultimately required. To this end, the plan is being detailed to the extent that the proposed rights-of-way are being delineated on topographic maps at a scale of 1" = 200'. These maps are suitable for the administration of zoning and subdivision ordinances and the protection of the necessary rights-of-way.

It must be reemphasized that the plan is based on the anticipated growth of the urban area. If actual growth rates and patterns differ from those anticipated, it may become desirable to accelerate or retard the development of the system or to make adjustments in the plan commensurate with variations from the anticipated development. In any event, it will be desirable to review the plan in detail every five to ten years.

II. THOROUGHFARE PLANNING PRINCIPLES

Typically, the urban street system occupies 25 to 30 percent of the total developed land in the urban area. As the system is permanent and expensive to build and maintain, much care and foresight are needed in its development. Thoroughfare planning is the process used by public officials to assure the development of the most logical and appropriate street system to meet existing and future travel within the urban area. The major steps involved in the thoroughfare planning process are:

1. Collecting data relative to present physical and travel conditions within the urban area
2. Predicting future travel within the urban area
3. Evaluating the adequacy of the existing street system in serving present and future travel
4. Devising the best thoroughfare plan, on the basis of sufficiency, economic benefits, construction cost, and compatibility with other elements of the urban development program, to serve future travel
5. Developing appropriate construction priorities for plan effectuation
6. Implementing the plan

Purpose of Thoroughfare Planning

The primary purpose of thoroughfare planning is to assure that the urban street system will be progressively developed in such manner as to adequately meet future travel demands. Thus, the major objective is that provisions be made for street and highway improvements so that, as needs arise, feasible opportunities to make improvements exist. Two major benefits to be derived from thoroughfare planning are: (1) Each street is planned and designed to perform a specific function. This provides savings in rights-of-way, construction, and maintenance costs. It also permits the locating and design of future development to function in a non-conflicting manner. (2) Local officials and citizens are informed as to what improvements are necessary and when they will be needed. With this advance knowledge, officials can better schedule funds and damage to property values and community appearance, as is sometimes associated with street building and widening programs, can be minimized.

Thoroughfare Concept

Streets perform two primary functions—they provide traffic service and land service. These two functions, when combined, are basically incompatible. The conflict is not serious if both traffic demands and land service demands are low. But when traffic volumes are high, conflicts created by uncontrolled and intensely used abutting property result in intolerable traffic flow friction and congestion.

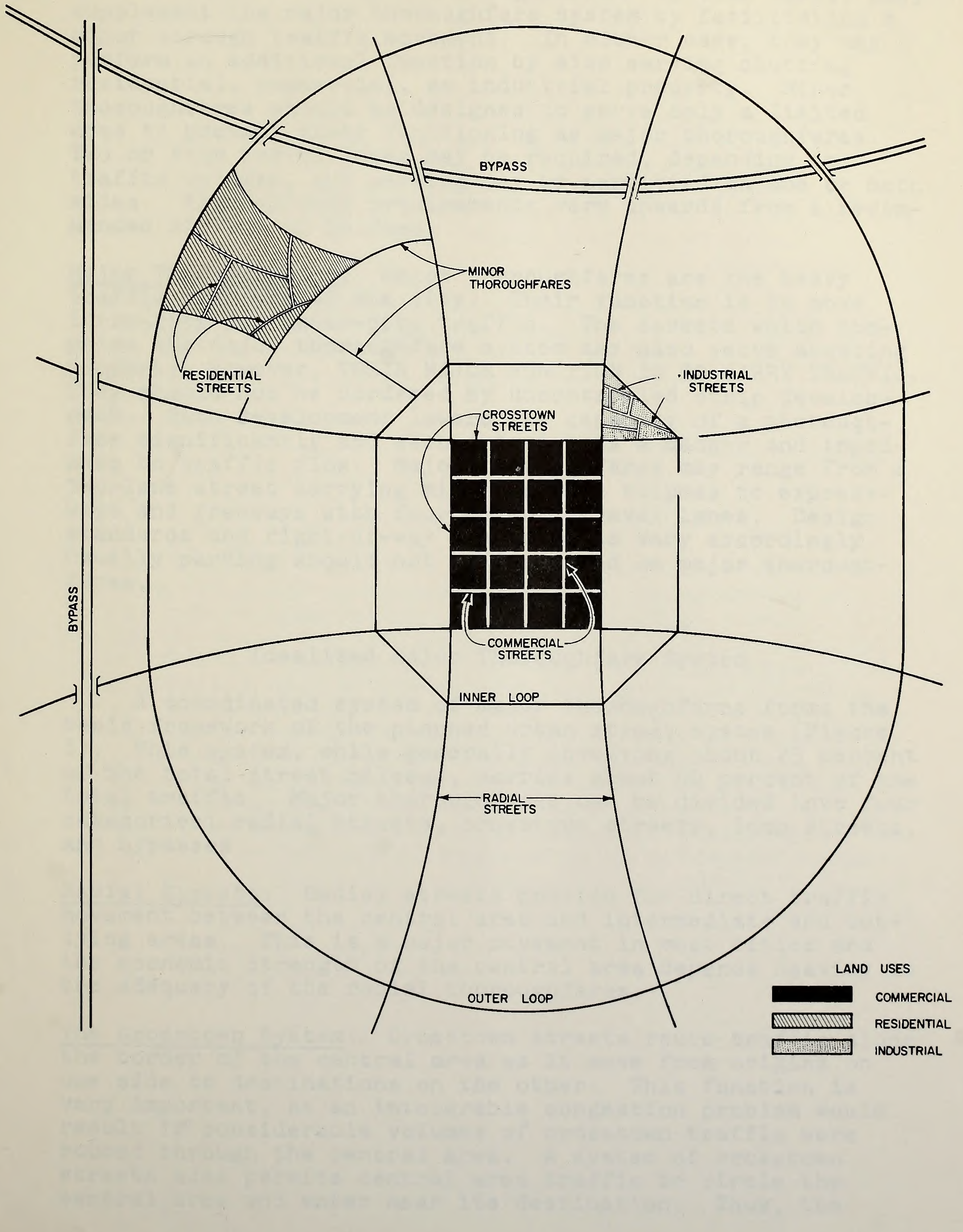
The underlying concept of the thoroughfare plan is that it provide a functional system of streets which permits travel with directness, ease, and safety. Different streets in the system are designed and called on to perform specific functions, thus minimizing the traffic and land service conflict. Streets can be categorized as to function and standards applied as follows (Figure 1):

Local Access Streets: These streets have the purpose of providing access to abutting property. They are not intended to carry heavy volumes of traffic and should be located in such a way to serve only traffic with origins or destinations on these streets. There are several different types of local access streets which can be classified according to the type of abutting land use which they serve. They are:

> Residential Streets: Residential streets provide access to abutting residential property. Through traffic movements should be discouraged by designing them as loops or cul-de-sacs. These streets should have two traffic lanes and may have parking on one or both sides. They should have a minimum right-of-way of 60 feet.
>
> Commercial Streets: Commercial streets provide access to abutting commercial property. They permit traffic to circulate in commercial areas and to reach parking facilities near their desired destinations. These streets should have sufficient width to provide two traffic lanes; and, if on-street parking is permitted, sufficient width for parking operation lanes and parking spaces. If a commercial street is used as a thoroughfare, additional traffic lanes may be required.
>
> Industrial Streets: Industrial streets provide access to abutting industrial development. They usually have a higher percentage of truck traffic and loading and unloading may take place on the street. Two traffic lanes should be provided with additional street width for parking or loading and unloading if either is permitted. A minimum right-of-way of 60 feet is desirable.

FIGURE I

IDEALIZED THOROUGHFARE PLAN


BYPASS
MINOR THOROUGHFARES
RESIDENTIAL STREETS
INDUSTRIAL STREETS
CROSSTOWN STREETS
COMMERCIAL STREETS
INNER LOOP
RADIAL STREETS
OUTER LOOP
BYPASS
LAND USES
COMMERCIAL
RESIDENTIAL
INDUSTRIAL

Minor Thoroughfares: These are more important streets in the city system. They perform the function of collecting traffic from residential, commercial, and industrial streets and carrying it to major thoroughfares. In some cases, they supplement the major thoroughfare system by facilitating a minor through traffic movement. In either case, they may perform an additional function by also serving abutting residential, commercial, or industrial property. Minor thoroughfares should be designed to serve only a limited area to prevent their functioning as major thoroughfares. Two or four travel lanes may be required, depending on traffic volumes, and parking may be permitted on one or both sides. Right-of-way requirements vary upwards from a recommended minimum of 60 feet.

Major Thoroughfares: Major thoroughfares are the heavy traffic carriers of the city. Their function is to move intra-city and inter-city traffic. The streets which comprise the major thoroughfare system may also serve abutting property; however, THEIR MAJOR FUNCTION IS TO CARRY TRAFFIC. They should not be bordered by uncontrolled strip development. Such development lowers the capacity of a thoroughfare significantly and each driveway is a danger and impedance to traffic flow. Major thoroughfares may range from a two-lane street carrying minor traffic volumes to expressways and freeways with four or more travel lanes. Design standards and right-of-way requirements vary accordingly. Usually parking should not be permitted on major thoroughfares.

Idealized Major Thoroughfare System

A coordinated system of major thoroughfares forms the basic framework of the planned urban street system (Figure I). This system, while generally involving about 25 percent of the total street mileage, carries about 80 percent of the total traffic. Major thoroughfares can be divided into four categories: radial streets, crosstown streets, loop streets, and bypasses.

Radial Streets: Radial streets provide for direct traffic movement between the central area and intermediate and outlying areas. This is a major movement in most cities and the economic strength of the central area depends heavily on the adequacy of the radial thoroughfares.

The Crosstown System: Crosstown streets route traffic along the border of the central area as it move from origins on one side to destinations on the other. This function is very important, as an intolerable congestion problem would result if considerable volumes of crosstown traffic were routed through the central area. A system of crosstown streets also permits central area traffic to circle the central area and enter near its destination. Thus, the overall effect of a good crosstown system is to free the central area of unnecessary traffic, thereby permitting it to better function in its role as a pedestrian shopping area.

The Loop System: Loop streets move traffic between suburban areas of the city. Although a loop may completely encircle the city, a typical trip would be from an origin near a radial thoroughfare to a destination near another radial thoroughfare. Loop streets do not necessarily carry heavy volumes of traffic, but they function to help relieve central area congestion and to shorten travel times between suburban areas. There may be one or more loops, depending on the size of the urban area, and they are generally spaced one-half mile to one mile apart, depending on the intensity of development.

The Bypass: Bypasses carry traffic through or around the urban area. They are usually designed to rural highway standards with control of access. The general effect of the bypass is to expedite the movement of through traffic and to lessen traffic congestion within the city. Occasionally a low traffic volume bypass can be designed to function as a portion of an urban loop.

Philosophy of Approach

The above discussion of the idealized thoroughfare system describes an idealized situation. While the same basic principles apply, it is not the purpose of the thoroughfare plan to present the idealistic pattern superimposed on the existing street system. Thoroughfare plans for established urban areas must be compatible with existing and anticipated development. Residential areas, schools, shopping center locations, major industrial areas, railroads, public and semi-public land use locations, topographic features, and many other factors all exert influences on the location of thoroughfares. It is also necessary that maximum advantage be taken of the existing basic street system which represents a major monetary investment.

III. THOMASVILLE 1964

Thomasville is located in Davidson County near the geographical center of the heavily industralized Piedmont Crescent Region of North Carolina. Incorporated in 1857, it owes its founding to John Warwick Thomas, who in 1851 chose and promoted development of the site on the new railroad between Lexington and High Point.

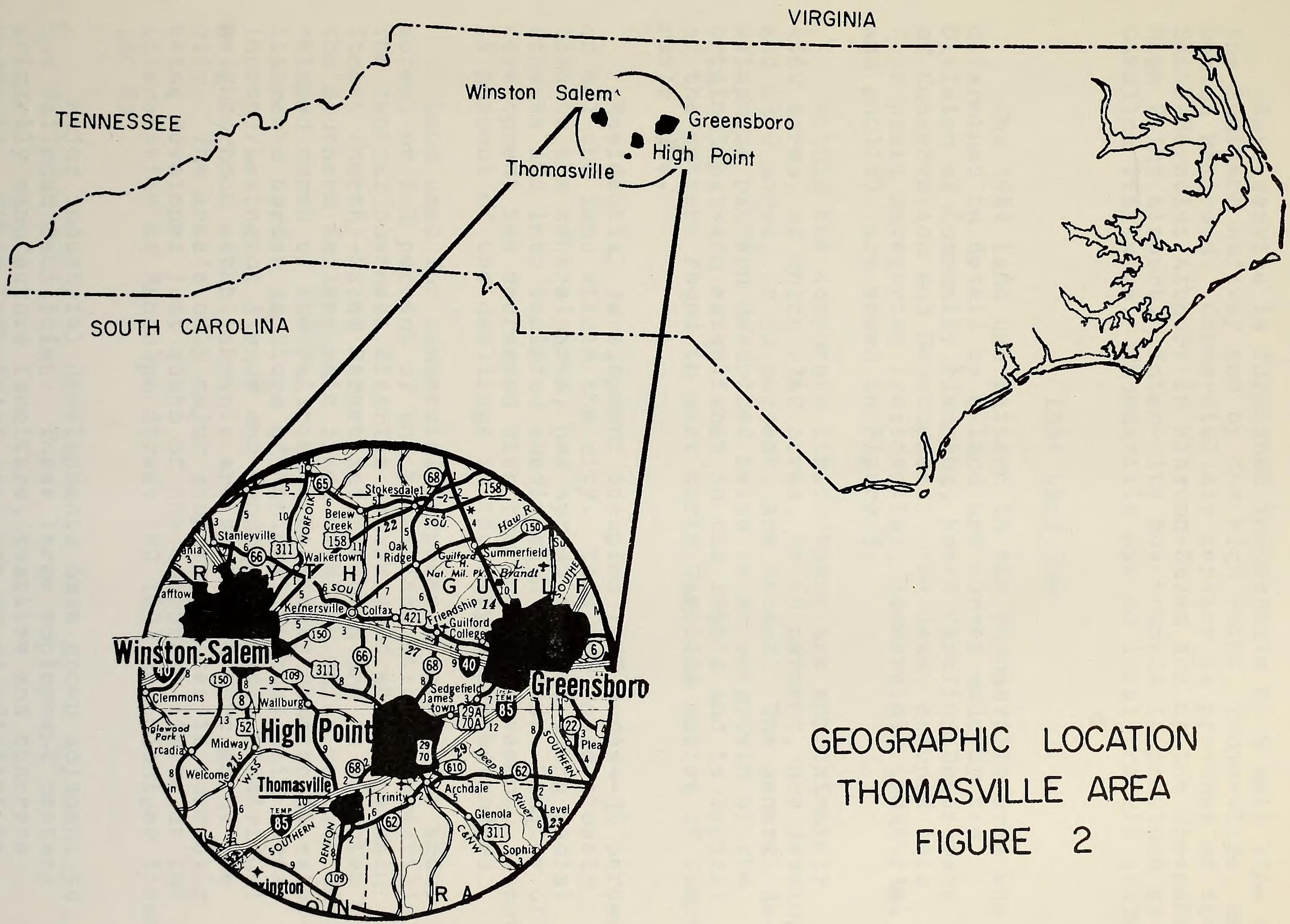
The physiography of Thomasville is typical of the Appalachian Piedmont Plateau. Average altitude is 853 feet and the terrain is rolling with grades up to 15 percent. Soils in the area have medium to poor permeability. Mean annual temperature is 62°F. and average annual precipitation is 45 inches.

Thomasville's 1960 population of 15,190 represents almost 20 percent of the 1960 Davidson County population of 79,493. The city population grew from 11,154 in 1950 and 11,041 in 1940. Lexington and Denton, with 1960 populations of 16,093 and 852 respectively, are the only other incorporated municipalities in the County.

The economy of Thomasville is heavily based on furniture and textile manufacturing. According to 1960 census data, these industries employ about 81 percent of the manufacturing labor force and 46 percent ot the total labor force. Other important employment groups are commerce, professional, and personal service.

The location of Thomasville with respect to the major cities and highways of the Piedmont Crescent is shown in Figure 2. Major cities located near Thomasville are: High Point, 7 miles; Lexington, 10 miles; Winston-Salem, 20 miles; Greensboro, 22 miles; and Asheboro, 26 miles.

US 29-70, NC 109, NC 62, and US 29A-70A/NC 68 are the existing primary routes providing Thomasville with highway service. US 29-70 is a part of the North Carolina Trunk Highway System; NC 109 north to Winston-Salem is a part of the North Carolina Trunk Feeder System; and NC 109 south of Thomasville, NC 62, and US 29A-70A/NC 68 are a part of the North Carolina Rural Collector System. An extensive secondary system connects Thomasville with areas lying outside the city. In addition to these existing primary and secondary routes, proposed Interstate 85, approved by the State Highway Commission for construction, will bisect the fringe area to the south.


VIRGINIA
TENNESSEE
SOUTH CAROLINA
Winston Salem
Greensboro
High Point
Thomasville
Winston-Salem
Greensboro
High Point
Thomasville
Stokesdale
Belew Creek
Stanleyville
Walkertown
Oak Ridge
Summerfield
Kernersville
Colfax
Guilford College
Sedgefield
Jamestown
Clemmons
Wallburg
Midway
Welcome
Trinity
Archdale
Glenola
Sophia
Level
Deep River
Haw R.

GEOGRAPHIC LOCATION
THOMASVILLE AREA
FIGURE 2

Rail service is furnished Thomasville by a main line of the Southern Railway and by the High Point, Thomasville, and Denton Railroad. Commercial air service is provided at the Smith-Reynolds Airport in Winston-Salem and by the Greensboro-High Point Airport. Inter-city bus transit is provided by Carolina Trailways. Thomasville has no local transit system.

1964 Land Use

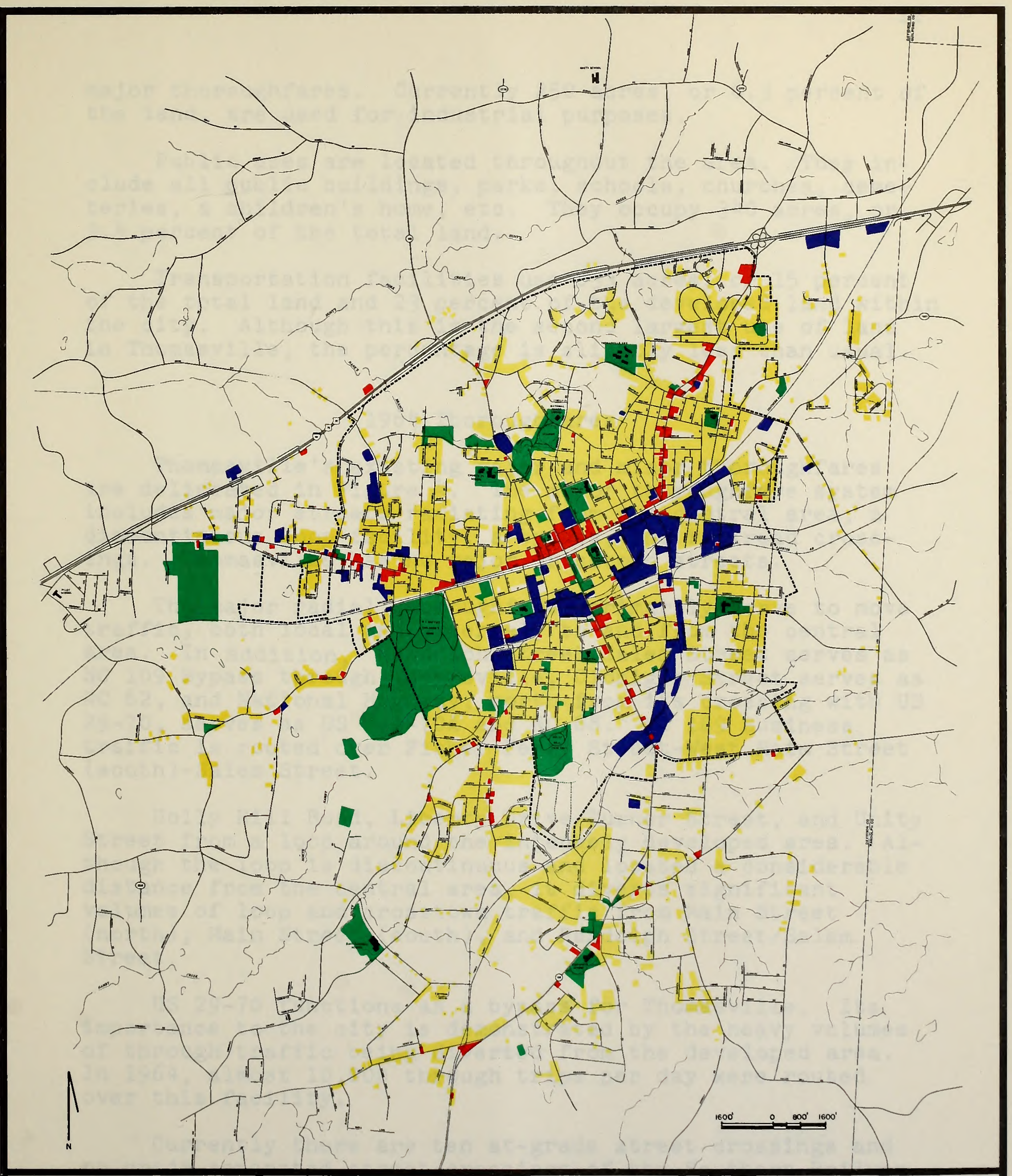
The 1964 land use pattern in the Thomasville area was determined in detail by a land use survey made by the Division of Community Planning, North Carolina Department of Conservation and Development. The uses, grouped into four basic categories (residential, commercial, industrial, and public), are shown in Figure 3.

Within the corporate limits there are approximately 4060 acres, of which 2760 acres, or 68 percent, are developed and 1300 acres, or 32 percent, are vacant. The general development pattern described below is an outgrowth of the original pattern established in the 1950's and is typical of the pattern found in most North Carolina cities of comparable size.

Residential development occupies 1440 acres—35 percent of all the land within the city. This use, once closely tied to the central area, has spread outward along radial streets and into isolated subdivision pockets. Density of development has decreased with the outward movement. About 18 percent of the dwellings in the city are substandard.

Land used for commercial purposes accounts for about 95 acres, or 2.3 percent of the total land within Thomasville. The central business district is centered about the Main Street (north)-Salem Street intersection and is bisected by the Southern Railway main line, with the major portion developed north of the railroad. Secondary commercial establishments border sections of National Highway/Main Street (north)/Lexington Avenue and Randolph Street. Individual neighborhood establishments are scattered throughout the city. The area's only major shopping center is currently being developed just south of the corporate limits at the intersection of Randolph Street (NC 109) and Cloniger Street (NC 62).

Major industrial developments have grown adjacent to the railroad facilities. These large employment centers primarily manufacture furniture, textiles and concrete products. Other industrial uses are found adjacent to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LEGEND:

🟨 RESIDENTIAL
🟥 COMMERCIAL
🟦 INDUSTRIAL
🟩 PUBLIC

1964 LAND USE MAP
THOMASVILLE, N.C.

FIGURE 3

major thoroughfares. Currently 250 acres, or 6.3 percent of the land, are used for industrial purposes.

Public uses are located throughout the area. They include all public buildings, parks, schools, churches, cemeteries, a children's home, etc. They occupy 340 acres, or 3.4 percent of the total land.

Transportation facilities use 633 acres, or 15 percent of the total land and 23 percent of the developed land within the city. Although this is the second largest use of land in Thomasville, the percentage is slightly less than usual.

1964 Thoroughfares

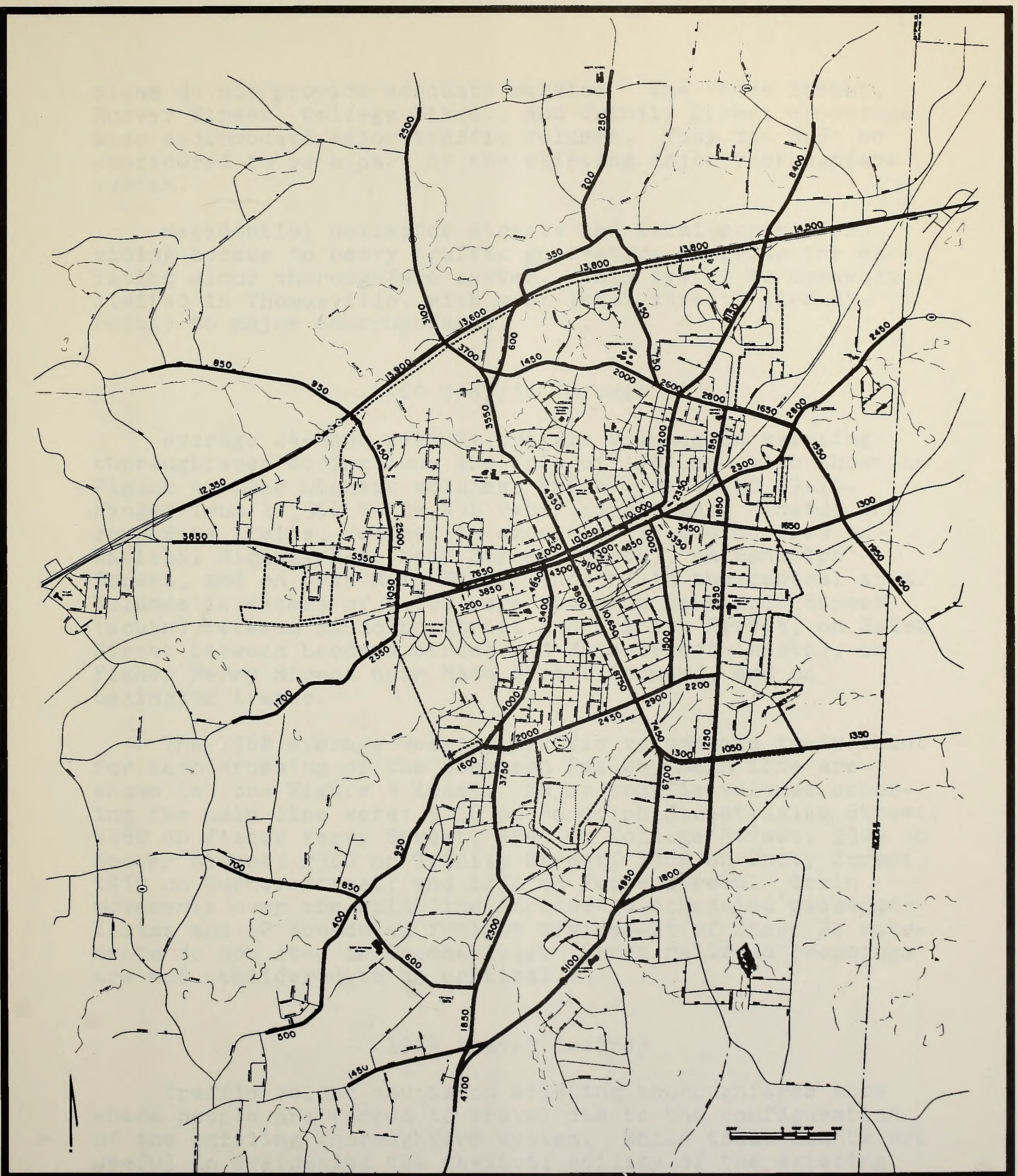
Thomasville's existing major and minor thoroughfares are delineated in Figure 4. The major thoroughfare system includes major streets radiating from the central area, a discontinuous loop facility, a bypass, and railroad crossings. Thomasville has no major crosstown streets.

The major radial thoroughfares primarily serve to move traffic, both local and external, to and from the central area. In addition, Randolph Street/Salem Street serves as NC 109 Bypass through Thomasville, Cloniger Street serves as NC 62, and National Highway, north from its crossing with US 29-70, serves as US 29A-70A and NC 68. NC 109 Business traffic is routed over Fisher Ferry Street-West Main Street (south)-Salem Street.

Holly Hill Road, Liberty Drive/Turner Street, and Unity Street from a loop around the intensely developed area. Although the loop is discontinuous and located a considerable distance from the central area, it diverts significant volumes of loop and crosstown traffic from Main Street (north), Main Street (south), and Randolph Street/Salem Street.

US 29-70 functions as a bypass for Thomasville. Its importance to the city is demonstrated by the heavy volumes of through traffic being diverted from the developed area. In 1964, almost 10,000 through trips per day were routed over this facility.

Currently there are ten at-grade street crossings and no grade-separated street crossings of the Southern Railway main line within the Thomasville area. The Unity Street/Cucumber Road, Turner Street/Liberty Drive, Randolph Street/Salem Street, and Fisher Ferry Street crossings are part of continuous major thoroughfares. However, these crossings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850
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LEGEND:
▬ THOROUGHFARES
oooo TRAFFIC VOLUMES

1964 THOROUGHFARES AND TRAFFIC VOLUMES
THOMASVILLE, N. C.

FIGURE 4

alone do not provide adequate service. The Peace Street, Hoover Street, College Street, and Trinity Street crossings also accommodate major traffic volumes. They too must be considered to be a part of the existing major thoroughfare system.

Residential collector streets and local streets providing access to heavy traffic generators comprise the existing minor thoroughfare system. This system is somewhat limited in Thomasville, with most local streets tied directly to major thoroughfares.

1964 Traffic Volumes

Average 24-hour weekday traffic volumes on existing thoroughfares during June and July of 1964 are also shown in Figure 4. The highest volumes, which were on US 29-70, ranged from 12,350 to 14,490 vehicles per day. Inside the corporate limits, volumes in excess of 10,000 occured on National Highway/East Main Street (north), on Randolph Street, and on West Main Street (north) in the central area. Volumes in excess of 5,000 were found on East Main Street (south) between Randolph Street and Trinity Street, on Salem Street between Leonard Street and Main Street (north), on Fisher Ferry Street near Main Street (south), and on Lexington Avenue.

The 1964 average weekday traffic volume and train count for each crossing of the Southern Railway main line are shown in the Figure 4 inset. Major traffic volumes crossing the main line were: 9110 on Randolph Street/Salem Street; 5080 on Fisher Ferry Street; 4540 on College Street; 3300 on Hoover Street; 2380 on Trinity Street; 1660 on Unity Street; 1470 on Turner Street; and 1150 on Peace Street. Train movements over the main line include 10 scheduled passenger trains and 12 scheduled freight trains—16 of these 22 movements do not stop in Thomasville. Other railroad crossings are not considered to be critical.

1964 Travel Desires

Traffic volume counts on existing thoroughfares show where people are forced to travel due to the configuration of the existing thoroughfare system. While these counts are useful in evaluating the physical ability of the existing thoroughfare system, they reveal little as to the actual travel desires (origins and destinations) of the motorists and they permit no evaluation of the functional sufficiency of the system. For thoroughfare planning purposes, a comprehensive knowledge of the origins and destinations of traffic movements is essential.

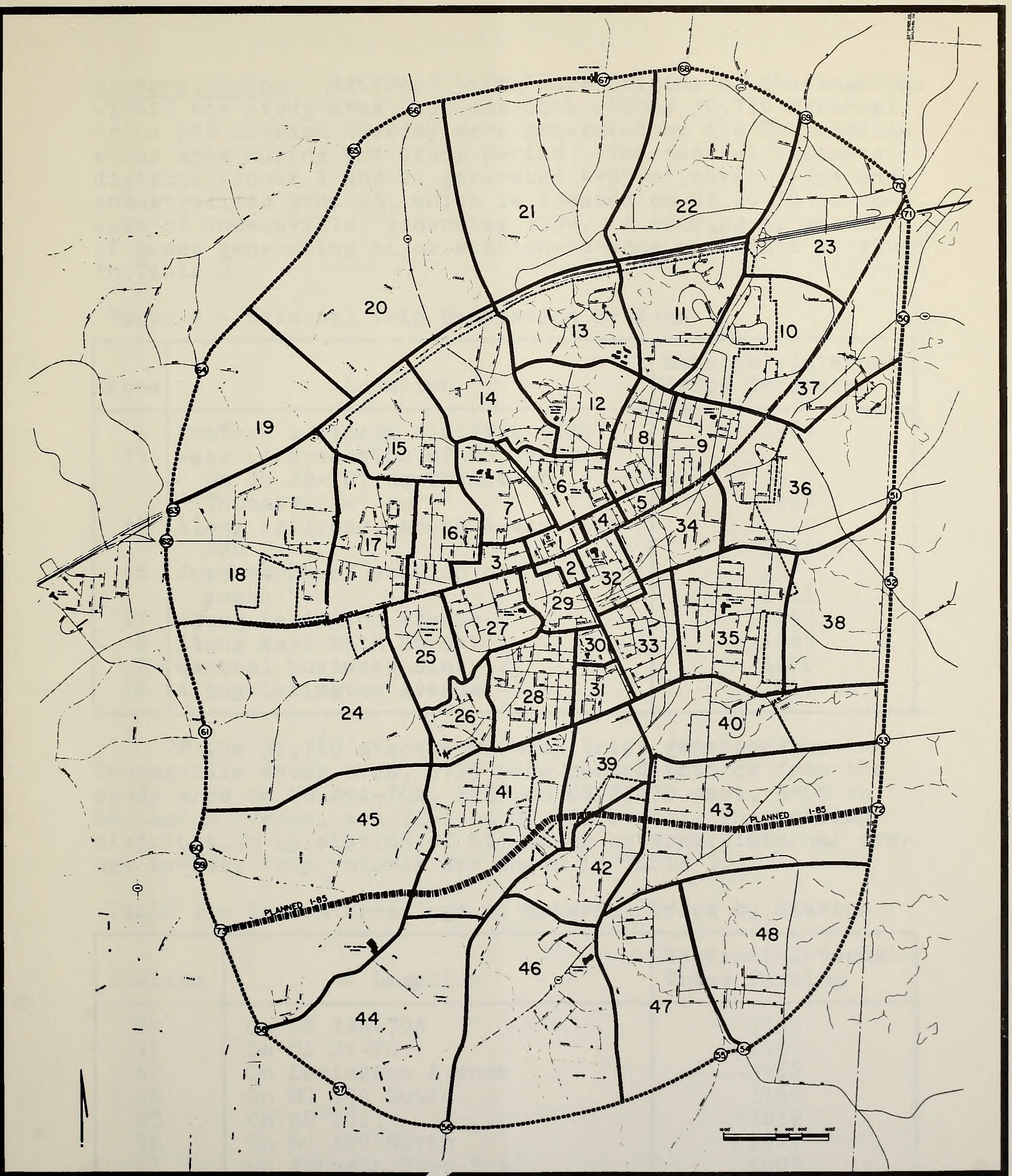
To systematically determine the origins and destinations of existing traffic, a study area consisting of the intensely developed area plus some fringe area is delineated and subdivided into traffic zones. Insofar as practical, the varying types of land uses are grouped into the different zones as a means of isolating trips with similar characteristics. Interview stations are operated on highways at the extremities of the study area to determine through (station-to-station) and external (station-to-zone) trip movements. Internal (zone-to-zone) trip movements are determined by interviewing people at home and truck and taxi owners.

An origin-destination traffic study for the Thomasville area was made by the Planning and Research Department, State Highway Commission, during the summer of 1964. The complete data and detailed procedures used in obtaining the data are contained in the report Thomasville, North Carolina, Origin and Destination Traffic Survey, North Carolina State Highway Commission, (1964). The major highlights of the study are as follows (Figure 5 contains a layout map with zones and stations numbered as referred to in this text. The numbering does not correspond to that used in the origin-destination study report):

Through Trips: Through trips have neither origins nor destinations within the study area. During the study period, an average weekday volume of 15,186 vehicles made such trips through the Thomasville Study area. The preponderance of these station-to-station trips—9779—were routed over US 29-70. All major through trip volumes are classified by routing in Table 1.

Table 1 - Through Trips Classified by Routing

From/To Station	Location	To/From Station	Location	Through Trips
71	US 29-70 East	63	US 29-70 West	9779
63	US 29-70 East	69	US 29A-70A	1502
56	NC 109-South	71	US 29-70 East	292
56	NC 109 South	66	NC 109 North	279
56	NC 109 South	69	US 29A-70A	233
56	NC 109 South	53	NC 62	209
56	NC 109 South	50	SR 2053	197
62	Lexington Ave.	69	US 29A-70A	180
56	NC 109 South	51	Trinity Street	167
63	US 29-70 West	66	NC 109 North	159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PLANNED I-85
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PLANNED I-85
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LEGEND:
00 ZONE NUMBER
⊗ STATION NUMBER
▬ SCREEN LINE
•••• PLANNING AREA BOUNDRY

LAYOUT MAP SHOWING STATIONS AND ZONES
THOMASVILLE, N. C.

FIGURE 5

External Trips: External trips have origins or destinations within the study area, but not both. Some 30,710 external trips per average weekday were generated by the Thomasville study area during the study period. The central business district (zones 1 and 2) generated 4495 of these trips and industralized zone 23, which is located on US 29-70 northeast of Thomasville, generated 3254. A ranking by volume of zones generating major station-to-zone movements is given in Table 2.

Table 2 - External Trip Generation by Zone

Zone	Location	External-Internal Trips Generated
1	Central business district (CBD)	3469
23	Near intersection of US 29-70 & on US 29-70, northeast of Thomasville	3254
34	Along railroad, south & east of CBD	1844
46	Just north of station on NC 109 south	1421
17	Along Lexington Avenue	1142
8	Along East Main Street	1088
2	Central business district	1026
18	Along Lexington Avenue	1015

Of the 30,710 average weekday trips generated by the Thomasville study area, 5795 were routed into or from the study area on US 29A-70A, 3987 on US 29-70 east, 3468 on Lexington Avenue, and 3161 on NC 109 south. The routing distribution by station of all major external-internal average weekday trip volumes are shown in Table 3.

Table 3 - Cordon Crossings of External Trips by Station

Station	Location	External-Internal Trips Passing
69	On US 29A-70A	5795
71	On US 29-70	3987
62	On Lexington Avenue	3468
56	On NC 109 South	3161
50	On SR 2053	2072
66	On NC 109 North	1627
61	On Johnson Town Road	1504
57	On Holly Grove Road	1080
51	On Trinity Street	1017
52	On Cucumber Road	988

Internal Trips: Internal trips have both origins and destinations within the study area. The Thomasville study area generated 97,831 of these zone-to-zone trips during an average weekday of the 1964 study period. The central business district with 6141 trips generated, was the major internal trip generator. The following table contains a listing by volume of the zones generating major internal trip movements.

Table 4 - Internal Trip Generation by Zone

Zone	Location	Internal Trips Generated
1	Central business district (CBD)	6741
8	On Salem Street, north of CBD	3371
17	On Lexington Avenue, west of CBD	3312
34	Alon railroad, south & east of CBD	3219
6	On Main Street (north), east of CBD	2871
33	On Randolph Street, south of CBD	2784
7	Northeast of CBD	2549

All through trips, external trips, and internal trips determined by the origin-destination study are tabulated by stations and zones in the study report. These trip data accurately describes Thomasville's current travel desires. It will not, however, prove satisfactory after Interstate 85 is constructed. This facilitiy will divert considerable volumes of through trips from US 29-70, attract additional through trips, and shift the routing of some external trips. For thoroughfare planning purposes it was deemed necessary to fabricate, at the 1964 traffic level, station-to-station and station-to-zone tabulations that would describe current travel desires if Interstate 85 was presently open to traffic. These fabricated through and external movements and the determined internal movements are given in Table 1. They permit a better evaluation of existing thoroughfare needs and provide a sound base for projecting future travel desires and determining future thoroughfare needs.

1964 Thoroughfare Problems

Capacity Problems

A good indication of the adequacy of an existing thoroughfare is a comparison of traffic demands on the thoroughfare with the traffic carrying ability of the thoroughfare. A thoroughfare's ability to carry traffic in an urban area is usually controlled by the capacity of its intersections.

INTERNAL TR

Zones	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Total Internal Trip Ends	Total Internal Trips
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								
13																								
14																								
15																								
16																								
17																								
18																								
19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27	7																							
28	2	92																						
29	82	52	66																					
30	36	37	27	34																				
31	0	51	11	76	2																			
32	71	50	30	65	27	49																		
33	55	100	71	158	98	71	119																	
34	95	119	156	63	49	135	143	109																
35	08	66	55	58	101	62	145	241	113															
36	27	2	7	30	10	35	62	44	16	29														
37	13	0	0	0	0	0	17	15	0	83	0													
38	0	0	0	0	0	13	0	0	0	0	0	0												
39	0	2	0	0	0	2	15	20	2	20	0	0	0											
40	2	27	8	45	26	28	80	50	15	13	16	0	4	56										
41	11	130	2	13	31	13	64	67	10	17	11	0	13	15	83									
42	27	13	34	7	7	0	0	13	34	0	0	0	0	10	20	4								
43	0	0	2	13	60	13	60	46	44	13	13	0	40	100	15	13	40							
44	0	15	2	15	0	54	4	2	0	7	2	0	2	16	0	8	8	0						
45	17	38	20	7	7	7	27	7	13	0	0	27	0	20	19	0	13	0	0					
46	21	21	38	27	89	39	46	38	51	13	28	8	4	91	57	65	36	31	27	195				
47	27	19	0	13	2	34	44	34	55	13	13	7	81	50	7	42	56	0	0	31	20			
48	13	15	0	0	0	0	1	0	2	0	0	0	0	13	0	0	0	0	0	2	8	2		
Internal Trip Ends by Zone	691	1698	1624	2128	940	1792	2903	3329	2498	850	309	91	350	1452	1465	790	1149	334	442	1749	902	67	70,172	35,086

EXTERNAL TR

Stations	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Ext. Trip Crossings by Station	Total External Trips
50	45	65	50	25	25	57	78	200	106	176	287	17	3	53	18	22	11	15	4	100	3	5	1,757	
51	8	23	20	18	14	17	24	100	60	146	5	7	3	41	12	13	8	6	1	23	3	3	863	
52	2	0	6	3	0	11	4	44	6	6	4	52	2	0	0	0	2	0	0	4	0	0	300	
53	16	24	18	21	25	19	63	27	30	0	2	1	22	268	13	21	19	7	0	104	5	0	991	
54	5	13	21	3	2	5	3	6	10	0	0	0	0	18	2	4	0	0	0	0	38	0	246	
55	13	17	44	10	2	9	32	104	5	11	2	0	2	10	2	11	7	0	0	63	117	0	708	
56	89	145	107	124	29	75	131	334	44	18	6	0	58	62	63	47	18	38	20	459	11	0	3,167	
57	20	10	32	28	4	22	40	54	15	9	5	0	8	30	26	14	2	178	3	157	4	0	933	
58	60	30	19	10	7	9	18	18	4	3	0	0	3	4	20	1	0	72	8	7	0	0	417	
59	15	80	2	20	4	8	45	20	7	6	0	0	2	33	25	18	2	7	94	47	2	2	536	
60	0	0	0	0	0	0	9	2	0	0	0	0	0	0	0	0	0	0	40	0	0	0	103	
61	50	20	30	13	0	14	20	86	6	5	5	0	2	5	7	0	1	4	1	10	0	0	1,335	
62	101	93	86	93	12	45	69	206	41	15	1	0	7	20	22	3	1	4	1	31	2	0	2,883	
63	4	4	2	4	3	3	5	19	9	5	4	0	1	1	4	0	0	0	0	5	1	0	616	
64	34	16	23	12	2	13	13	41	6	1	0	0	5	1	1	1	1	2	1	9	0	0	759	
65	29	6	42	10	0	29	22	43	10	4	1	0	4	3	0	2	3	0	0	16	0	0	770	
66	47	26	74	39	4	26	34	107	37	18	6	1	13	23	18	20	6	2	1	35	5	4	1,632	
67	0	1	7	0	0	4	0	10	0	2	0	0	0	0	0	2	0	0	0	4	0	0	184	
68	5	0	0	0	0	0	0	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	264	
69	171	138	87	85	46	114	108	187	120	64	15	7	28	36	83	46	17	25	33	131	10	6	5,799	
70	0	11	6	19	3	15	9	9	11	23	7	3	2	7	9	16	1	5	8	15	4	0	823	
71	65	50	25	38	24	52	38	80	56	18	13	2	13	22	24	11	3	10	10	33	3	2	3,365	
72	25	23	22	20	10	25	22	69	29	29	29	7	20	24	15	11	30	6	14	77	19	2	1,158	
73	38	40	35	27	7	20	40	76	18	14	1	0	35	20	13	10	30	25	10	90	2	0	1,158	
External Trip Ends by Zone	842	835	758	622	223	592	827	1844	630	573	394	99	233	681	377	273	162	406	249	1420	229	24	30,767	30,767
Internal Trip Ends by Zone	691	1698	1624	2128	940	1792	2903	3329	2498	850	309	91	350	1452	1465	790	1149	334	442	1749	902	67	Total Ext. + Int. Trip Ends	Total Ext. + Int. Trips
Total Trip Ends by Zone	1533	2533	2382	2750	1163	2384	3730	5173	3128	1423	703	190	583	2133	1842	1063	1311	740	691	3169	1131	91	100,939	65,853

THROUGH TRIPS

Stations	tal ru ips
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
Thru Trip Crossings by Station	17,186
Ext. Trip Crossings by Station	tal t. + Thru ips
Total Trip Crossings by Station	47,953

Table 5

Fabricated 1964 Trip Movements

Internal Trips: Internal trips have both origins and destinations within the study area. The Thomasville study area generated 97,831 of these zone-to-zone trips during an average weekday of the 1964 study period. The central business district with 6141 trips generated, was the major internal trip generator. The following table contains a listing by volume of the zones generating major internal trip movements.

Table 4 - Internal Trip Generation by Zone

Zone	Location	Internal Trips Generated
1	Central business district (CBD)	6741
8	On Salem Street, north of CBD	3371
17	On Lexington Avenue, west of CBD	3312
34	Alon railroad, south & east of CBD	3219
6	On Main Street (north), east of CBD	2871
33	On Randolph Street, south of CBD	2784
7	Northeast of CBD	2549

All through trips, external trips, and internal trips determined by the origin-destination study are tabulated by stations and zones in the study report. These trip data accurately describes Thomasville's current travel desires. It will not, however, prove satisfactory after Interstate 85 is constructed. This faciltiy will divert considerable volumes of through trips from US 29-70, attract additional through trips, and shift the routing of some external trips. For thoroughfare planning purposes it was deemed necessary to fabricate, at the 1964 traffic level, station-to-station and station-to-zone tabulations that would describe current travel desires if Interstate 85 was presently open to traffic. These fabricated through and external movements and the determined internal movements are given in Table 1. They permit a better evaluation of existing thoroughfare needs and provide a sound base for projecting future travel desires and determining future thoroughfare needs.

1964 Thoroughfare Problems

Capacity Problems

A good indication of the adequacy of an existing thoroughfare is a comparison of traffic demands on the thoroughfare with the traffic carrying ability of the thoroughfare. A thoroughfare's ability to carry traffic in an urban area is usually controlled by the capacity of its intersections.

INTERNAL TRIPS

ZONES	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Total Internal Trip Ends	Total Internal Trips
1	276																																																	
2	153	18																																																
3	43	90	16																																														
4	79	45	15	0																																												
5	65	61	42	30	9																																										
6	423	59	77	97	25	145																																									
7	451	86	51	8	44	62	181																																								
8	241	75	58	71	175	178	95	320																																						
9	291	35	55	43	48	35	52	129	185																																					
10	178	47	8	11	69	83	15	88	39	46																																				
11	133	28	10	15	34	42	28	90	44	90	71																																			
12	294	17	10	30	0	119	103	61	21	49	0	16																																		
13	20	0	0	7	0	13	13	20	7	54	0	0	0																																	
14	38	0	0	0	9	13	56	19	15	20	64	2	0	4																																
15	67	3	0	0	15	4	91	0	27	9	1	9	0	0	12																															
16	211	17	26	27	34	56	89	103	24	67	9	20	0	7	95	42																														
17	231	78	58	53	46	133	218	89	59	108	19	46	0	19	71	173	324																													
18	108	49	3	20	27	28	42	7	0	21	7	20	7	0	14	18	171	81																												
19	10	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	6	13	0																											
20	23	7	0	0	4	6	13	33	0	17	4	0	0	11	7	4	25	13	0	16																										
21	22	1	9	0	0	7	20	34	20	13	7	7	0	34	0	0	9	2	27	27	35																									
22	4	40	4	2	4	20	0	28	0	22	8	0	0	4	0	13	4	6	0	4	29	29																								
23	108	47	0	4	9	20	2	77	27	85	25	24	34	0	19	15	32	36	0	13	88	72	132																							
24	87	47	7	0	11	48	34	40	22	13	7	32	0	0	2	2	81	42	0	0	0	0	0	80																						
25	47	34	13	0	8	50	6	0	3	13	0	1	7	0	3	0	109	7	0	0	0	13	13	42	0																					
26	80	42	9	0	27	44	2	17	8	40	0	2	0	0	0	9	74	0	0	0	0	2	0	17	7	17																				
27	183	81	56	6	4	145	40	33	16	29	32	50	0	22	13	51	96	15	0	7	0	15	0	31	27	7	7																			
28	120	28	15	9	15	24	15	74	44	46	15	0	13	4	15	6	58	7	0	0	0	27	7	15	0	106	2	92																		
29	190	80	65	7	0	56	83	54	33	13	0	51	13	11	7	44	96	0	0	11	7	8	0	0	0	0	82	52	66																	
30	218	97	7	37	34	166	146	81	66	108	21	43	0	0	2	64	12	34	0	0	13	27	7	7	84	62	36	37	27	34																
31	102	3	2	0	0	48	1	21	14	34	19	13	0	2	0	1	17	6	0	0	0	0	4	0	0	2	0	51	11	76	2																			
32	149	93	44	25	18	67	45	87	40	60	51	19	13	27	1	34	37	13	0	13	5	0	4	13	14	24	71	50	30	65	27	49																		
33	255	47	29	38	70	71	15	86	62	34	1	36	0	4	4	13	89	76	0	4	20	24	20	20	0	263	55	100	71	158	98	71	119																	
34	172	123	98	80	41	101	176	200	75	56	34	82	40	27	48	21	87	20	18	0	13	4	82	38	2	27	95	119	156	63	49	135	143	109																
35	171	77	19	34	66	49	10	79	147	75	44	4	0	0	20	58	37	0	0	0	74	20	15	13	34	35	108	66	55	58	101	62	145	241	113															
36	82	29	4	13	0	29	4	90	24	13	2	0	0	0	0	0	26	27	0	4	0	0	1	1	0	2	27	2	7	30	10	35	62	44	16	29														
37	36	20	4	0	0	0	0	0	8	0	7	0	0	0	0	17	4	0	0	2	0	0	0	0	0	0	13	0	0	0	0	0	17	15	0	83	0													
38	2	0	0	0	27	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0												
39	13	14	15	2	0	0	13	13	8	8	0	0	0	6	34	0	15	0	0	0	0	0	2	0	2	0	0	2	0	0	0	2	15	20	2	20	0	0	0											
40	222	49	0	7	26	17	20	40	65	15	38	0	0	0	0	47	43	6	0	7	7	0	2	35	0	7	2	27	8	45	26	26	80	50	15	13	16	0	4	56										
41	157	13	31	7	0	20	0	13	34	27	7	4	7	0	27	15	60	34	0	34	13	0	11	13	0	74	111	130	2	13	31	13	64	67	10	17	11	0	13	15	83									
42	240	41	7	0	0	27	0	6	28	4	0	0	0	0	0	2	2	4	0	13	0	0	62	2	0	47	27	13	34	7	7	0	0	13	34	0	0	0	0	10	20	4								
43	117	40	27	0	13	40	20	11	13	54	0	0	0	0	0	4	20	34	0	0	0	24	27	20	0	20	0	0	2	13	60	13	60	46	44	13	13	0	40	100	15	13	40							
44	49	27	0	0	2	13	0	34	0	13	2	0	0	0	4	0	7	2	0	0	0	0	0	15	0	0	0	15	2	15	0	54	4	2	0	7	2	0	2	16	0	8	8	0						
45	40	0	4	0	0	0	0	7	0	0	0	13	0	0	0	0	7	40	0	0	0	0	0	62	0	20	17	38	20	7	7	7	27	7	13	0	0	27	0	20	19	0	13	0	0					
46	161	0	0	0	6	29	15	46	0	20	35	7	13	13	0	0	31	2	0	0	0	0	7	4	0	13	21	21	38	27	89	39	46	38	51	13	28	8	4	91	57	65	36	31	27	195				
47	103	28	4	0	20	38	0	27	14	0	0	0	13	0	12	2	10	0	0	20	0	0	2	0	0	13	27	19	0	13	2	34	44	34	55	13	13	7	81	50	7	42	56	0	0	31	20			
48	1	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	15	0	0	0	0	1	0	2	0	0	0	0	13	0	0	0	0	0	2	8	2		
Internal Trip Ends by Zone	7018	2005	1067	824	1158	3017	2728	3694	2252	1906	1166	1245	294	439	660	1524	3638	1231	77	374	613	515	1399	1063	539	1153	1691	1698	1624	2128	940	1792	2903	3329	2498	850	309	91	350	1452	1465	790	1149	334	442	1749	902	67	70,172	35,086

EXTERNAL TRIPS

STATIONS	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Ext. Trip Crossings by Station	Total External Trips
50	100	45	19	2	11	18	8	41	26	16	4	4	3	4	0	11	16	5	0	0	2	2	11	10	10	24	45	65	50	25	25	57	78	200	106	176	287	17	3	53	18	22	11	15	4	100	3	5	1,757	
51	100	27	12	5	10	9	5	28	20	7	12	3	3	3	3	6	12	14	1	0	0	2	2	5	4	15	8	23	20	18	14	17	24	100	60	146	5	7	3	41	12	13	8	6	1	23	3	3	863	
52	20	4	10	2	4	17	0	27	7	9	22	2	3	2	0	2	16	4	0	0	0	0	1	0	0	2	2	0	6	3	0	11	4	44	6	6	4	52	2	0	0	0	2	0	0	4	0	0	300	
53	97	29	13	12	3	10	10	11	16	2	9	4	5	0	1	7	10	13	0	0	0	1	5	4	8	16	16	24	18	21	25	19	63	27	30	0	2	1	22	268	13	21	19	7	0	104	5	0	991	
54	47	12	70	0	6	0	17	5	4	2	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	5	13	21	3	2	5	3	6	10	0	0	0	0	18	2	4	0	0	0	0	38	0	246	
55	76	15	17	6	10	22	33	10	3	3	6	2	2	3	2	5	16	5	0	0	0	0	6	0	0	5	13	17	44	10	2	9	32	104	5	11	2	0	2	10	2	11	7	0	0	63	117	0	708	
56	366	147	102	27	42	63	48	60	24	32	31	13	5	24	27	36	83	38	1	11	9	10	16	18	15	41	89	145	107	124	29	75	131	334	44	18	6	0	58	62	63	47	18	38	20	459	11	0	3,167	
57	64	54	25	1	10	20	11	15	11	3	5	2	6	2	4	5	11	6	0	3	1	0	1	4	0	8	20	10	32	28	4	22	40	54	15	9	5	0	8	30	26	14	2	178	3	157	4	0	933	
58	36	21	7	1	5	5	6	5	3	0	0	1	0	0	0	7	3	33	0	0	2	1	2	0	2	14	60	30	19	10	7	9	18	18	4	3	0	0	3	4	20	1	0	72	8	7	0	0	417	
59	34	4	15	0	5	4	0	0	0	3	0	0	0	0	0	0	9	0	0	0	0	0	0	7	2	14	15	80	2	20	4	8	45	20	7	6	0	0	2	33	25	18	2	7	94	47	2	2	536	
60	22	8	7	0	0	7	0	3	0	0	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	2	0	0	0	0	0	0	0	0	0	0	40	0	0	0	103	
61	274	50	95	7	34	40	16	25	14	13	2	10	0	2	17	20	95	31	0	1	3	3	15	265	17	7	50	20	30	13	0	14	20	86	6	5	5	0	2	5	7	0	1	4	1	10	0	0	1,335	
62	462	151	135	18	44	44	40	64	42	25	20	7	2	7	25	66	316	437	0	0	1	3	17	17	62	25	101	93	86	93	12	45	69	206	41	15	1	0	7	20	22	3	1	4	1	31	2	0	2,883	
63	90	6	2	0	6	38	13	56	15	30	15	10	4	7	7	5	5	160	3	7	12	7	40	0	1	3	4	4	2	4	3	3	5	19	9	5	4	0	1	1	4	0	0	0	0	5	1	0	618	
64	138	44	80	13	14	50	9	25	5	4	4	6	0	1	21	16	79	12	52	0	0	1	0	1	1	1	34	16	23	12	2	13	13	41	6	1	0	0	5	1	1	1	1	2	1	9	0	0	759	
65	98	10	15	7	14	32	14	15	8	13	2	8	1	6	11	1	31	9	0	211	17	4	13	1	1	4	29	6	42	10	0	29	22	43	10	4	1	0	4	3	0	2	3	0	0	16	0	0	770	
66	253	29	50	7	10	39	36	67	20	22	21	14	8	15	7	30	46	26	1	214	41	13	72	4	27	14	47	26	74	39	4	26	34	107	37	18	6	1	13	23	18	20	6	2	1	35	5	4	1,632	
67	31	8	8	0	0	0	0	2	8	0	1	0	0	2	5	1	4	4	0	0	75	0	5	0	0	0	0	1	7	0	0	4	0	10	0	2	0	0	0	0	0	2	0	0	0	4	0	0	184	
68	22	1	7	2	2	10	6	14	3	4	0	0	0	7	0	3	2	0	0	6	20	126	19	0	0	0	5	0	0	0	0	0	0	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	264	
69	571	162	86	44	46	127	93	343	193	95	163	55	16	46	46	79	167	77	4	19	105	120	1434	30	27	94	171	138	87	85	46	114	108	187	120	64	15	7	28	36	83	46	17	25	33	131	10	6	5,799	
70	26	15	3	2	5	21	4	22	17	25	7	1	2	3	3	5	7	6	0	3	6	9	415	10	0	23	0	11	6	19	3	15	9	9	11	23	7	3	2	7	9	16	1	5	8	15	4	0	823	
71	280	107	77	35	42	66	104	170	118	75	95	25	14	20	65	55	110	91	6	20	23	39	1038	35	39	24	65	50	25	38	24	52	38	80	56	18	13	2	13	22	24	11	3	10	10	33	3	2	3,365	
72	100	30	25	10	9	32	15	42	30	16	19	7	4	8	10	15	36	11	5	7	16	16	124	13	14	16	25	23	22	20	10	25	22	69	29	29	29	7	20	24	15	11	30	6	14	77	19	2	1,158	
73	162	47	31	5	9	20	14	40	15	15	15	7	2	4	10	15	50	66	1	1	10	12	21	20	4	11	38	40	35	27	7	20	40	76	18	14	1	0	35	20	13	10	30	25	10	90	2	0	1,158	
External Trip Ends by Zone	3469	1026	848	206	341	694	502	1090	602	414	453	181	80	166	264	393	1142	1016	74	503	343	369	3257	444	234	361	842	835	758	622	223	592	827	1844	630	573	394	99	233	681	377	273	162	406	249	1420	229	24	30,767	30,767
Internal Trip Ends by Zone	7016	2005	1067	824	1158	3017	2728	3694	2252	1906	1186	1245	294	439	660	1524	3636	1231	77	374	613	515	1399	1063	539	1153	1691	1698	1624	2128	940	1792	2903	3329	2498	850	309	91	350	1452	1465	790	1149	334	442	1749	902	67	Total Ext. + Int. Trip Ends	Total Ext. + Int. Trips
Total Trip Ends by Zone	10,487	3031	1915	1030	1499	3711	3230	4784	2854	2320	1639	1426	374	605	924	1917	4760	2249	151	877	956	884	4656	1507	773	1514	2533	2533	2382	2750	1163	2384	3730	5173	3128	1423	703	190	583	2133	1842	1063	1311	740	691	3169	1131	91	100,939	65,653

THROUGH TRIPS

STATIONS	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	Total Thru Trip Crossings	Total Thru Trips
50																										
51	2																									
52	25	38																								
53	5	9	0																							
54	5	2	0	5																						
55	10	0	3	11	10																					
56	167	167	4	84	7	3																				
57	5	7	0	36	18	12	45																			
58	3	1	0	3	0	4	0	0																		
59	2	4	0	1	0	2	20	0	0																	
60	1	0	0	1	0	0	1	0	0	0																
61	6	4	4	1	0	0	5	0	0	0	0															
62	8	11	13	4	0	2	3	5	0	0	0	0														
63	46	18	7	2	4	4	4	2	0	0	0	0	3													
64	0	0	7	1	0	4	11	3	6	0	0	1	2	1												
65	1	0	4	3	3	0	5	3	0	1	0	3	1	6	0											
66	6	19	14	4	4	30	279	37	8	0	0	18	13	109	4	25										
67	0	0	0	0	0	0	6	0	0	0	0	0	0	11	0	9	10									
68	1	0	0	1	0	0	3	0	0	0	0	2	2	3	0	4	1	0								
69	4	4	77	4	0	37	233	102	10	3	1	107	180	1301	36	144	76	5	1							
70	2	1	0	4	0	0	8	2	0	0	0	7	3	43	2	6	6	0	0	36						
71	1	1	9	3	1	10	142	19	7	3	4	18	25	3464	10	24	102	6	3	15	33					
72	0	5	35	1	2	8	305	47	6	1	0	15	45	15	10	20	55	0	0	25	15	0				
73	105	0	0	5	0	10	15	15	0	0	0	0	0	5	0	0	50	0	0	255	0	150	8031			
Thru Trip Crossings by Station	405	293	240	188	61	156	1517	358	44	43	8	191	320	5066	98	262	876	47	21	2656	168	4070	8641	8641	34,372	17,186
Ext. Trip Crossings by Station	1757	863	300	991	246	708	3167	933	417	536	103	1335	2883	616	759	770	1632	184	264	5799	823	3365	1158	1158	Total Trip Crossings	Total Ext. + Thru Trips
Total Trip Crossings by Station	2162	1156	540	1179	307	864	4684	1291	461	579	111	1526	3203	5664	857	1032	2508	231	285	8455	991	7435	9799	9799	65,139	47,953

Table 5

Fabricated 1964 Trip Movements

Comparisons of 1964 average peak hour traffic demands at critical intersections in Thomasville's existing thoroughfare system with the practical capacities of the intersections are shown in Figure 6. (Practical capacity is defined as the maximum number of vehicles that can pass a given point on a roadway or in a designated lane during one hour without traffic density being so great as to cause unreasonable delay, hazard, or restriction to the driver's freedom to maneuver under the prevailing roadway or traffic conditions.[1]) Peak hour volumes are at or above practical capacity on all major radial thoroughfares. Peak hour volumes have reached a critical level at the Salem Street/ Randolph Street, Fisher Ferry Street, College Street, and Trinity Street crossings of the Southern Railway main line.

System Deficiency Problems

Providing adequate thoroughfare capacity without consideration for the routing of traffic movements within the city is not enough. It is necessary that a thoroughfare system permit travel with reasonable directness and ease. Thomasville's existing thoroughfare system is critically deficient in this respect. The past construction of new facilities has been limited almost to the building of local streets onto the existing major radial thoroughfares. Too little concern has been given to constructing loop and crosstown thoroughfares to supplement the radial thoroughfares. The result is that major volumes of potential loop and crosstown traffic are forced onto the radial thoroughfares and then routed through the central area. The congestion problem on radial thoroughfares and at crossings of the Southern Railway is rapidly becoming intolerable, particularly in the central area.

Operational Problems

Five of the street crossings of the Southern Railway main line connect Main Street (north) with Main Street (south), which parallel each side of the railroad through the central area. The nearness of Main Street (north) and Main Street (south) to the railroad creates a traffic operational problem in that no practical storage for crossing vehicles can be provided. The situation is complicated with heavy volumes of turning movements at these crossings and by poor geometric designs of the crossings.

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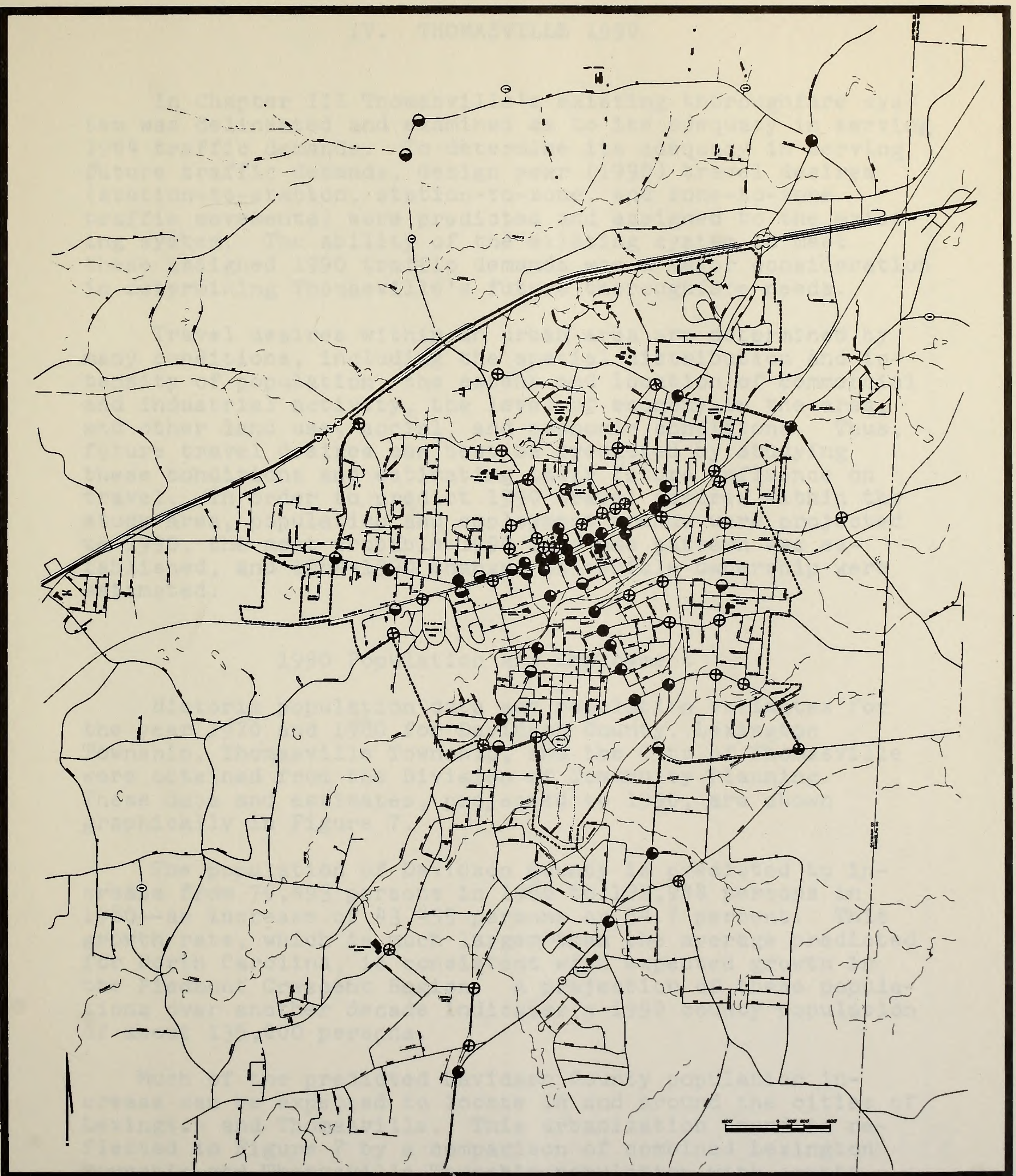
[1] Highway Capacity Manual, Bureau of Public Roads, United States Department of Commerce, Washington, D. C., 1950, Page 5

Other traffic operational problems in Thomasville result from: short and non-uniform block lengths; offset intersections; the lack of turn lanes at major intersections; poor geometric designs; and strip commercial development along major thoroughfares.



LEGEND:
- ⊕ VOLUME LESS THAN 50% CAPACITY
- ◒ VOLUME MORE THAN 50% CAPACITY
- ◕ VOLUME MORE THAN 75% CAPACITY
- ● VOLUME MORE THAN 100% CAPACITY

1964 VOLUME / CAPACITY MAP
THOMASVILLE, N. C.

FIGURE 6

IV. THOMASVILLE 1990

In Chapter III Thomasville's existing thoroughfare system was delineated and examined as to its adequacy in serving 1964 traffic demands. To determine its adequacy in serving future traffic demands, design year (1990) travel desires (station-to-station, station-to-zone, and zone-to-zone traffic movements) were predicted and assigned to the existing system. The ability of the existing system to meet these assigned 1990 traffic demands was a major consideration in determining Thomasville's future thoroughfare needs.

Travel desires within an urban area are determined by many conditions, including the spatial distribution and intensity of population, the extent and location of commercial and industrial activity, the level of economy in the area, and other land use, social, and economic conditions. Thus, future travel desires can best be predicted by studying these conditions and estimating their future influence on travel. In order to predict 1990 travel desires within the study area, population and employment trends were projected to 1990, the most probable 1990 land use pattern was established, and 1964-1990 changes in vehicle ownership were estimated.

1990 Population and Employment

Historic population data and population estimates for the year 1970 and 1980 for Davidson County, Lexington Township, Thomasville Township, and the City of Thomasville were obtained from the Division of Community Planning. These data and estimates, projected to 1990, are shown graphically in Figure 7.

The population of Davidson County is predicted to increase from 79,493 persons in 1960 to 122,948 persons in 1980—an increase of 43,455 persons or 54.7 percent. This growth rate, which is much larger than the average predicted for North Carolina, is consistent with expected growth in the Piedmont Crescent Region. A projection of these populations over another decade indicates a 1990 county population of about 135,000 persons.

Much of the predicted Davidson County population increase can be expected to locate in and around the cities of Lexington and Thomasville. This urbanization trend is reflected in Figure 7 by a comparison of combined Lexington Township and Thomasville Township population with county population. These two townships, sharing growth equally,

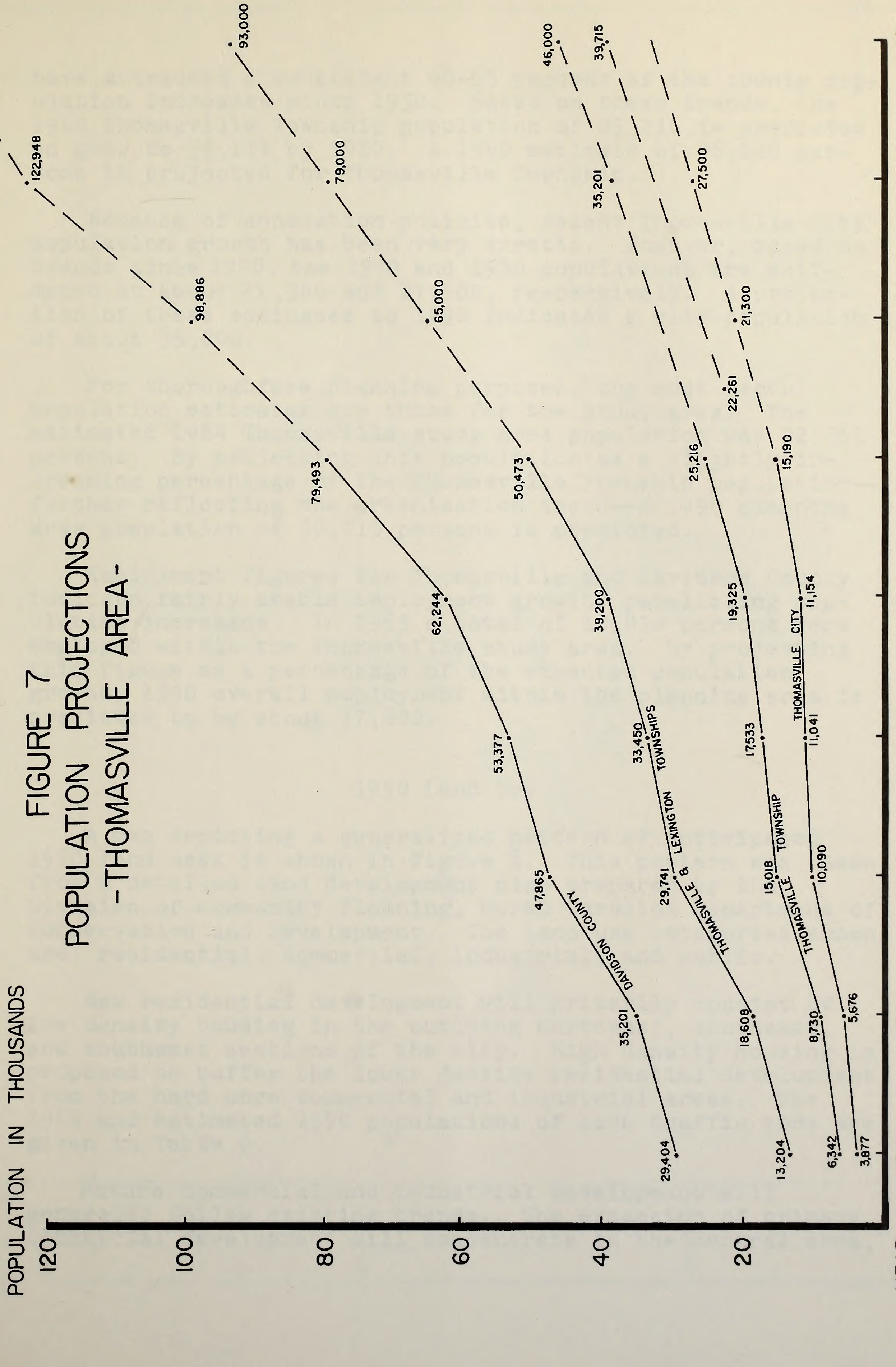


FIGURE 7
POPULATION PROJECTIONS
-THOMASVILLE AREA-

have attracted a consistent 60-65 percent of the county population increases since 1930. Based on these trends, the 1960 Thomasville Township population of 25,216 is predicted to grow to 38,114 by 1980. A 1990 estimate of 46,000 persons is projected for Thomasville Township.

Because of annexation policies, recent Thomasville city population growth has been very erratic. However, based on trends since 1900, the 1970 and 1980 populations are estimated at about 21,300 and 27,500, respectively. A projection of these estimates to 1990 indicates a city population of about 35,000.

For thoroughfare planning purposes, the most useful population estimates are those for the study area. The estimated 1964 Thomasville study area population was 22,261 persons. By projecting this population as a slightly increasing percentage of the Thomasville Township population—further reflecting the urbanization trend—a 1990 planning area population of 39,715 persons is predicted.

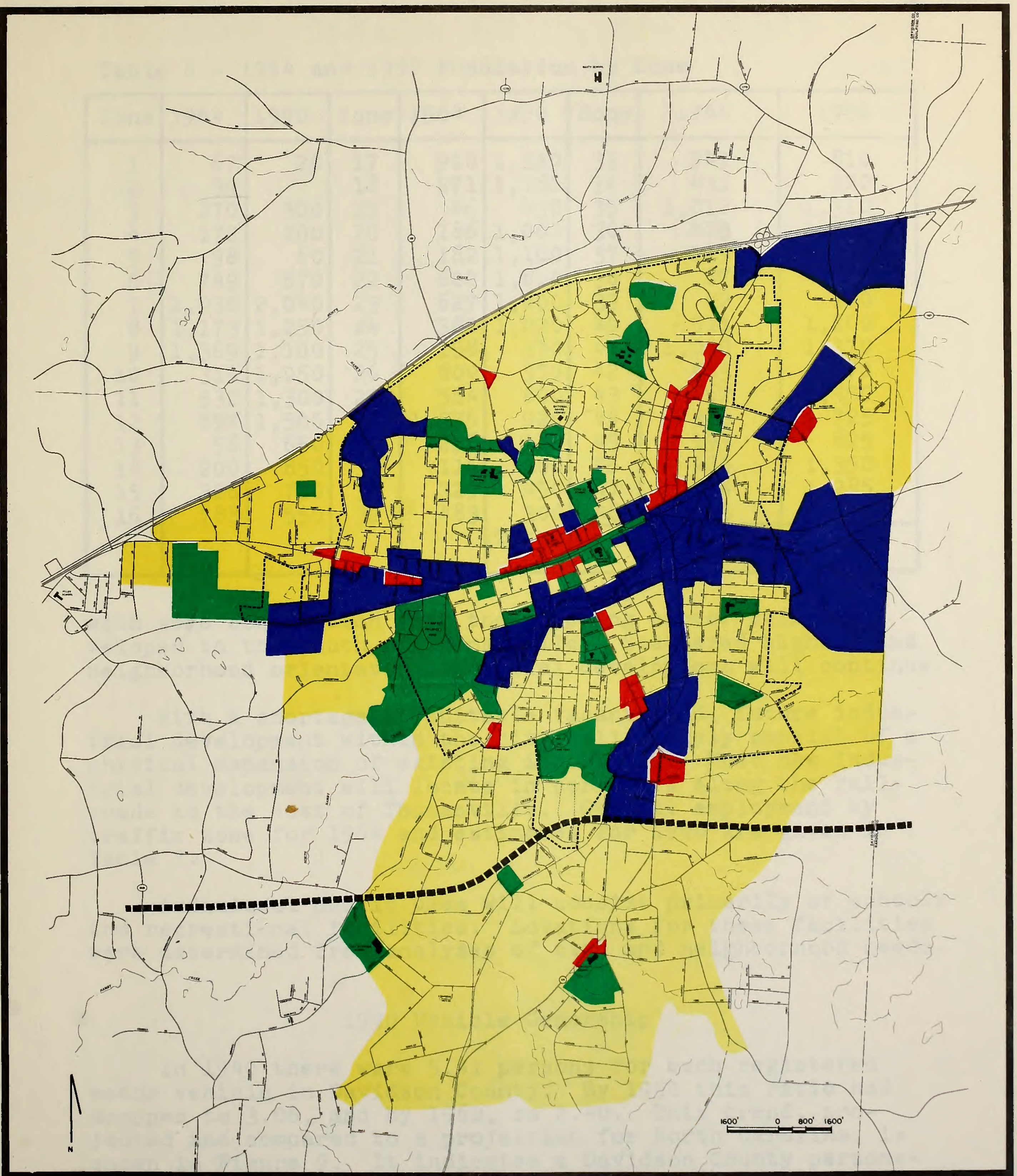
Employment figures for Thomasville and Davidson County indicate fairly stable employment growth, paralleling population increases. In 1965 a total of 10,830 persons were employed within the Thomasville study area. By projecting this figure as a percentage of the expected population growth, 1990 overall employment within the planning area is predicted to be about 17,800.

1990 Land Use

A map depicting a generalized pattern of anticipated 1990 land uses is shown in Figure 8. This pattern was taken from a detailed land development plan prepared by the Division of Community Planning, North Carolina Department of Conservation and Development. The land use categories shown are: residential, commercial, industrial, and public.

New residential development will primarily consist of low density housing in the outlying northeast, southeast, and southwest sections of the city. High density housing is proposed to buffer the lower density residential development from the hard core commercial and industrial areas. The 1964 and estimated 1990 populations of each traffic zone are given in Table 6.

Future commercial and industrial development will generally follow existing trends. The expansion of primary commercial development will concentrate in the central area,


N
1600' 0 800' 1600'

LEGEND:

- 🟨 RESIDENTIAL
- 🟥 COMMERCIAL
- 🟦 INDUSTRIAL
- 🟩 PUBLIC

LAND DEVELOPMENT PLAN
THOMASVILLE, N. C.

FIGURE 8

Table 6 - 1964 and 1990 Population by Zone

Zone	1964	1990	Zone	1964	1990	Zone	1964	1990
1	67	20	17	910	1,390	33	949	810
2	39		18	571	1,180	34	431	220
3	270	300	19	46	430	35	1,012	1,310
4	172	200	20	186	1,000	36	473	1,300
5	98	60	21	182	1,100	37	119	350
6	749	870	22	602	1,600	38	67	180
7	1,036	2,040	23	627	1,600	39	42	160
8	1,173	1,250	24	382	1,020	40	511	1,200
9	1,369	1,100	25	158	370	41	1,050	1,370
10	319	1,050	26	609	570	42	483	670
11	532	1,300	27	564	600	43	462	1,450
12	557	1,500	28	1,376	920	44	326	725
13	56	650	29	256	140	45	193	825
14	200	850	30	116	200	46	466	1,350
15	326	700	31	329	450	47	504	1,285
16	788	550	32	483	300	48	25	1,200
					Total		22,261	39,715

with some competition from the shopping center being developed to the south of Thomasville. Scattered highway and neighborhood orientated commercial development will continue.

With a shortage of suitable vacant land, future industrial development within the city will largely consist of a physical expansion of existing industries. Most new industrial development will locate in corridors along the railroads to the east of Thomasville. Overall employment by traffic zone for 1964 and estimates for 1990 are given in Table 7.

Additional public uses will consist primarily of schools and recreational facilities. Locations for these facilities were determined from analyses of city and neighborhood needs.

1990 Vehicle Ownership

In 1940 there were 5.41 persons for each registered motor vehicle in Davidson County. By 1950 this ratio had dropped to 3.06, and by 1960, to 2.40. This trend, projected and compared to a projection for North Carolina, is shown in Figure 9. It indicates a Davidson County persons-per-vehicle ratio of 2.20 in 1964 and about 1.8 in 1990.

Table 7 - 1964 and 1990 Employment by Zone

Zone	1964	1990	Zone	1964	1990	Zone	1964	1990
1	731	1,000	17	597	850	33	495	750
2	193	350	18	171	250	34	1,829	2,200
3	983	1,250	19	8	15	35	133	250
4	54	125	20	15	50	36	199	750
5	413	700	21	31	50	37	2	110
6	384	450	22	33	465	38	5	250
7	124	150	23	322	750	39	180	360
8	4	10	24	17	250	40	35	200
9	239	410	25	133	170	41	48	100
10	164	250	26	8	10	42	2	10
11	6	100	27	734	900	43	101	400
12	44	50	28	599	700	44	21	50
13	18	125	29	614	700	45	48	100
14	12	100	30	221	400	46	111	175
15	290	750	31	35	50	47	7	20
16	38	125	32	377	500	48	2	10
					Total		10,830	17,800

Historic vehicle ownership data were not available for the Thomasville study area. However, 1964 truck and private passenger car ownership data, gathered during the internal phase of the origin-destination study, indicate that a 1964 study area persons-per-vehicle ratio would be comparable to the 1964 county ratio. It was assumed that future changes in study area vehicle ownership will be the same as those predicted for Davidson County.

1990 Travel Desires

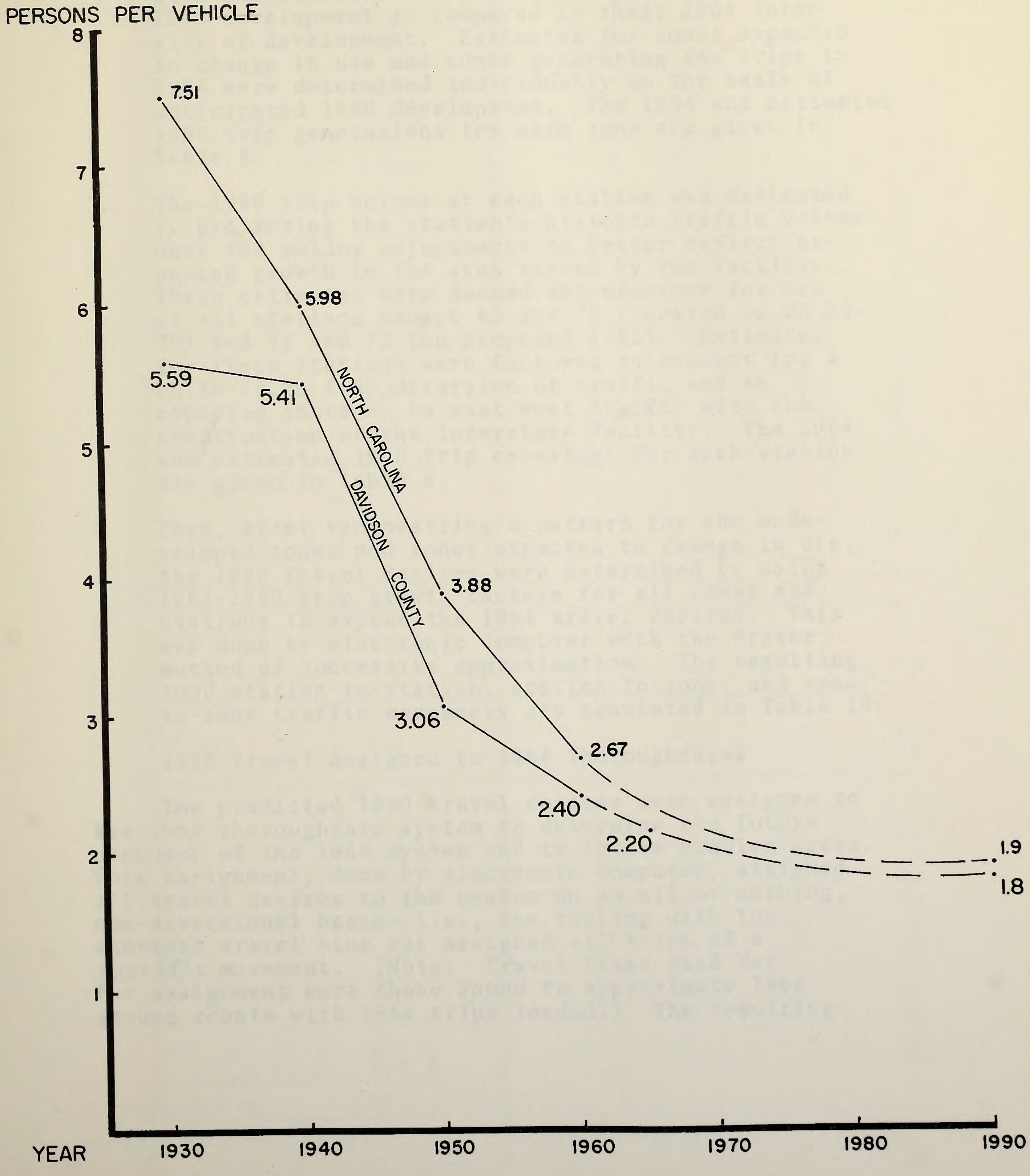
To predict 1990 station-to-station, station-to-zone, and zone-to-zone movements within the Thomasville study are, the following steps were taken:

1. The 1990 total study area trip generation (i.e., the total number of 1990 station-to-station, zone-to-zone and intrazonal trips generated) was estimated. This estimate was made by increasing the 1964 study area trip generation in direct proportion to the predicted increases in study area population and vehicle ownership. It increased the 1964 study area generation of 65,853 trips to 167,096 trips in 1990.

FIGURE 9

VEHICLE OWNERSHIP TRENDS

NORTH CAROLINA AND DAVIDSON COUNTY



2. Using the estimated 1990 study area trip generation as a control, the 1990 trip generation of each zone was estimated. Estimates for stable zones with significant 1964 trip generation were obtained by increasing their 1964 trip generation in accordance with the relative intensity of their anticipated 1990 development as compared to their 1964 intensity of development. Estimates for zones expected to change in use and zones generating few trips in 1964 were determined individually on the basis of anticipated 1990 development. The 1964 and estimated 1990 trip generations for each zone are given in Table 8.

3. The 1990 trip volume at each station was estimated by projecting the station's historic traffic volume data and making adjustments to better reflect expected growth in the area served by the facility. These estimates were deemed satisfactory for use at all stations except 63 and 71 (located on US 29-70) and 72 and 73 (on proposed I-85). Estimates for these stations were factored to account for a US 29-70 to I-85 diversion of traffic and an expected increase in east-west traffic with the construction of the Interstate facility. The 1964 and estimated 1990 trip crossings for each station are given in Table 9.

4. Then, after synthesizing a pattern for the undeveloped zones and zones expected to change in use, the 1990 travel desires were determined by using 1964-1990 trip growth factors for all zones and stations to expand the 1964 travel desires. This was done by electronic computer with the Fratar method of successive approximation. The resulting 1990 station-to-station, station-to-zone, and zone-to-zone traffic movements are tabulated in Table 10.

1990 Travel Assigned to 1964 Thoroughfares

The predicted 1990 travel desires were assigned to the 1964 thoroughfare system to determine the future adequacy of the 1964 system and to locate problem areas. This assignment, done by electronic computer, assigned all travel desires to the system on an all-or-nothing, non-directional basis--i.e., the routing with the shortest travel time was assigned all trips of a specific movement. (Note: Travel times used for the assignment were those found to approximate 1964 ground counts with 1964 trips loaded.) The resulting

Table 8 - 1964 and 1990 Trip Generations by Zone

Zone	1964[a]	G.F.[b]	1990[c]	Zone	1964[a]	G.F[b]	1990[c]
1	10,211	1.69	17,236	25	773	1.63	1,258
2	3,013	1.72	5,187	26	1,497	2.37	3,548
3	1,899	1.21	2,299	27	2,526	1.48	3,749
4	1,030	2.44	2,516	28	2,441	1.70	4,138
5	1,490	1.76	2,621	29	2,316	1.15	2,662
6	3,566	1.35	4,815	30	2,716	2.04	5,540
7	3,049	1.69	5,149	31	1,161	1.79	2,074
8	4,464	1.52	6,788	32	2,335	1.38	3,216
9	2,669	1.87	4,989	33	3,611	1.83	6,622
10	2,274	3.54	8,048	34	5,064	1.21	6,140
11	1,568	4.71	7,378	35	3,015	2.11	6,349
12	1,410	3.63	5,122	36	1,394	3.90	5,443
13	374	14.99	5,605	37	703	3.15	2,216
14	601	9.06	5,444	38	190	14.71	2,794
15	912	3.42	3.120	39	583	2.58	1,504
16	1,875	2.37	4,449	40	2,077	3.98	8,271
17	4,456	2.11	9.401	41	1,759	2.18	3,830
18	2,168	2.73	5,915	42	1,059	1.65	1,750
19	151	13.31	2,010	43	1,271	5.24	6,660
20	859	6.59	5,657	44	740	4.01	2,967
21	921	4.73	4,360	45	691	4.04	2,794
22	855	10.72	9,165	46	2,974	2.86	8,516
23	4,524	3.21	14,508	47	1,111	3.47	3.855
24	1,427	6.12	8,760	48	89	32.63	2,904
				Total	97,864		249,342

[a]Actual Generations [b]Growth Factor [c]Predicted Generations

Table 9 - 1964 and 1990 Trip Crossings by Station

Station	1964[a]	G.F.[b]	1990[c]	Station	1964[a]	G.F.[b]	1990[c]
50	2,162	3,08	6,651	62	3,203	1.59	5,080
51	1,156	2.28	2,641	63	5,684	2.66	15,113
52	545	4.67	2,545	64	857	2.37	2,034
53	1,179	2.60	3,058	65	1,032	2.49	2,565
54	307	3.34	1,026	66	2,058	2.62	5,378
55	864	2.83	2,447	67	231	3.20	739
56	4,684	2.25	0,520	68	285	3.54	1,009
57	1,291	2.77	3,574	29	8,455	2.28	19,247
58	461	3.24	1,518	70	991	2.60	2,575
59	579	2.58	1,492	71	7,435	2.25	16,758
60	111	3.77	419	72	9,799	2.19	21,420
61	1,526	2.46	3,756	73	9.799	2.28	21,561
				Total	65,139		153,626

[a]Fabricated Crossings [b]Growth Factor [c]Predicted Crossings

INTERNAL T

ZONES	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Total Internal Trip Ends	Total Internal Trips
1																								
2																								
3																								
4																								
5																								
6																								
7																								
8																								
9																								
10																								
11																								
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19																								
20																								
21																								
22																								
23																								
24																								
25																								
26																								
27	24																							
28	3	26																						
29	0	50	39																					
30	4	112	30	5																				
31	5	37	12	145	4																			
32	5	53	21	77	33	74																		
33	0	145	68	309	110	73	288																	
34	1	113	96	66	53	90	131	145																
35	3	116	64	115	202	77	249	268	254															
36	0	5	10	93	31	50	220	88	35	293														
37	8	1	4	10	3	25	13	24	22	32	18													
38	5	4	3	7	8	83	13	14	11	0	0	240												
39	0	4	0	1	1	3	27	23	4	50	25	0	9											
40	4	82	16	203	38	59	234	95	53	133	44	9	15	181										
41	0	225	2	25	60	16	107	72	20	62	36	5	28	52	70									
42	8	17	29	11	10	1	1	11	53	0	0	4	2	26	30	75								
43	5	15	5	201	85	32	202	100	181	143	40	42	171	697	60	40	230							
44	0	40	4	45	8	119	12	4	4	46	11	0	8	101	4	22	58	32						
45	5	94	33	20	19	12	65	11	38	5	5	299	6	99	54	4	74	5	39					
46	0	43	53	165	115	59	96	51	129	109	69	203	11	542	140	122	178	139	95	266				
47	0	43	1	30	8	54	97	48	148	90	30	95	101	353	18	84	293	5	4	100	25			
48	0	100	9	25	13	9	33	17	48	30	25	20	17	202	15	29	311	14	11	127	204	23		
Internal Trip Ends by Zone	02	2629	1772	4294	1557	2524	5386	4144	5191	3295	816	1912	912	6024	3077	1273	6043	1285	1999	4750	2934	2327	184,976	92,488

EXTERNAL T

STATIONS	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Ext. Trip Crossings by Station	
50	9	148	80	79	49	90	168	276	263	914	1039	219	19	243	51	45	137	68	22	348	40	103	5,523	
51	3	37	23	38	27	22	41	114	122	474	15	62	15	151	29	21	44	25	2	90	18	53	2,049	
52	3	1	15	15	2	21	9	75	17	30	20	534	6	0	0	0	11	0	0	14	0	0	1,447	
53	0	38	19	37	45	21	97	27	56	1	5	9	43	851	24	29	69	23	5	235	12	14	2,250	
54	0	32	37	9	6	9	8	10	31	3	2	0	0	96	6	9	12	6	4	4	153	24	761	
55	3	43	72	28	6	16	78	163	15	56	10	0	6	50	6	24	40	5	4	225	443	22	1,977	
56	6	275	134	249	79	101	242	339	99	55	37	11	137	238	138	78	80	151	63	1249	32	9	6,992	
57	7	19	42	62	9	34	80	75	35	34	23	0	64	131	62	26	52	771	9	498	14	0	2,768	
58	6	83	32	33	22	19	47	35	11	14	1	0	9	20	61	2	6	391	32	42	4	0	1,348	
59	1	143	2	37	9	12	85	26	14	19	1	0	14	126	51	35	46	24	282	157	5	30	1,349	
60	2	2	2	0	0	0	23	3	0	0	0	0	0	0	0	0	0	6	175	0	0	0	378	
61	0	31	37	23	3	17	39	109	11	22	16	5	4	31	18	1	4	13	3	38	0	0	3,395	
62	6	164	99	170	28	52	116	200	92	68	3	4	28	68	39	6	34	11	2	118	6	6	4,988	
63	6	8	2	8	7	4	9	23	20	27	16	6	2	4	9	0	4	0	0	14	3	0	2,104	
64	7	28	27	24	4	16	22	45	12	3	1	5	11	4	2	1	4	7	3	23	0	0	1,798	
65	4	9	41	15	2	30	32	40	18	12	3	4	7	9	2	3	10	0	0	34	0	0	2,098	
66	0	33	69	62	6	26	46	94	62	54	14	8	23	65	29	25	19	6	2	70	11	50	3,575	
67	1	1	10	1	1	6	2	14	3	7	2	0	0	0	0	4	10	0	0	13	0	0	617	
68	4	1	1	0	1	1	1	1	1	0	2	12	0	0	0	0	5	0	0	1	0	0	983	
69	6	228	94	159	85	133	173	194	234	214	50	70	57	119	157	66	65	86	90	309	25	89	13,743	
70	2	18	7	36	6	18	15	9	22	77	25	30	4	24	17	24	4	18	22	36	10	0	2,209	
71	0	63	19	56	34	48	46	64	84	47	33	13	32	58	37	13	21	28	39	99	10	20	6,465	
72	5	50	25	40	35	40	70	70	90	150	50	70	60	40	35	40	70	60	60	240	60	80	2,825	
73	0	80	40	70	55	30	75	75	100	160	50	60	60	100	50	100	100	15	15	180	100	100	2,966	Total External Trips
External Trip Ends by Zone	1	1535	929	1251	521	766	1524	2141	1412	2441	1418	1122	601	2428	823	552	847	1714	834	4032	946	600	74,608	74,608
Internal Trip Ends by Zone	02	2629	1772	4294	1557	2524	5386	4144	5191	3295	816	1912	912	6024	3077	1273	6043	1285	1999	4750	2934	2327	Total Ext. + Int. Trip Ends	Total Ext. + Int. Trips
Total Trip Ends by Zone	3	4164	2701	5545	2078	3290	6910	6285	6603	5736	2234	3034	1513	8452	3900	1825	6890	2999	2833	8782	3880	2927	259,584	167,096

THROUOH TRI

STATIONS		
50		
51		
52		
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69		
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72		
73	l Trip sings	Total Thru Trips
Thru Trip Crossings by Station	,018	39,509
Ext. Trip Crossings by Station	l sings	Total Ext. + Thru Trips
Total Trip Crossings by Station	,626	114,117

Table 10

Predicted 1990 Trip Movements

NOTE: Estimates of trip movements were prepared in 1964. More recent estimates of trip movements on I-85 are higher.

Table 8 - 1964 and 1990 Trip Generations by Zone

Zone	1964[a]	G.F.[b]	1990[c]	Zone	1964[a]	G.F[b]	1990[c]
1	10,211	1.69	17,236	25	773	1.63	1,258
2	3,013	1.72	5,187	26	1,497	2.37	3,548
3	1,899	1.21	2,299	27	2,526	1.48	3,749
4	1,030	2.44	2,516	28	2,441	1.70	4,138
5	1,490	1.76	2,621	29	2,316	1.15	2,662
6	3,566	1.35	4,815	30	2,716	2.04	5,540
7	3,049	1.69	5,149	31	1,161	1.79	2,074
8	4,464	1.52	6,788	32	2,335	1.38	3,216
9	2,669	1.87	4,989	33	3,611	1.83	6,622
10	2,274	3.54	8,048	34	5,064	1.21	6,140
11	1,568	4.71	7,378	35	3,015	2.11	6,349
12	1,410	3.63	5,122	36	1,394	3.90	5,443
13	374	14.99	5,605	37	703	3.15	2,216
14	601	9.06	5,444	38	190	14.71	2,794
15	912	3.42	3.120	39	583	2.58	1,504
16	1,875	2.37	4,449	40	2,077	3.98	8,271
17	4,456	2.11	9.401	41	1,759	2.18	3,830
18	2,168	2.73	5,915	42	1,059	1.65	1,750
19	151	13.31	2,010	43	1,271	5.24	6,660
20	859	6.59	5,657	44	740	4.01	2,967
21	921	4.73	4,360	45	691	4.04	2,794
22	855	10.72	9,165	46	2,974	2.86	8,516
23	4,524	3.21	14,508	47	1,111	3.47	3.855
24	1,427	6.12	8,760	48	89	32.63	2,904
				Total	97,864		249,342

[a]Actual Generations [b]Growth Factor [c]Predicted Generations

Table 9 - 1964 and 1990 Trip Crossings by Station

Station	1964[a]	G.F.[b]	1990[c]	Station	1964[a]	G.F.[b]	1990[c]
50	2,162	3,08	6,651	62	3,203	1.59	5,080
51	1,156	2.28	2,641	63	5,684	2.66	15,113
52	545	4.67	2,545	64	857	2.37	2,034
53	1,179	2.60	3,058	65	1,032	2.49	2,565
54	307	3.34	1,026	66	2,058	2.62	5,378
55	864	2.83	2,447	67	231	3.20	739
56	4,684	2.25	0,520	68	285	3.54	1,009
57	1,291	2.77	3,574	29	8,455	2.28	19,247
58	461	3.24	1,518	70	991	2.60	2,575
59	579	2.58	1,492	71	7,435	2.25	16,758
60	111	3.77	419	72	9,799	2.19	21,420
61	1,526	2.46	3,756	73	9.799	2.28	21,561
				Total	65,139		153,626

[a]Fabricated Crossings [b]Growth Factor [c]Predicted Crossings

INTERNAL TRIPS

Zones	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Total Internal Trip Ends	Total Internal Trips
1	361																																																	
2	193	50																																																
3	44	96	9																																														
4	140	84	22	86																																													
5	78	83	51	59	8																																											
6	415	60	64	120	30	55																																										
7	278	90	43	10	55	50	924																																									
8	332	75	47	89	208	139	76	703																																								
9	369	46	59	23	74	36	55	130	519																																							
10	374	103	14	183	28	141	26	147	86	223																																						
11	408	89	26	68	120	104	71	220	141	478	478																																					
12	877	53	25	80	32	437	105	145	65	255	15	92																																				
13	223	12	0	70	27	217	20	177	82	1045	14	14	45																																			
14	315	13	5	20	51	67	294	96	99	219	1026	31	29	11																																		
15	185	9	2	12	40	9	209	9	78	43	7	61	13	14	2																																	
16	384	32	40	64	75	83	134	149	46	212	42	89	17	67	395	24																																
17	325	114	69	90	85	152	205	100	87	264	68	159	26	140	228	416	1141																															
18	198	94	5	50	58	42	64	10	4	67	33	90	118	19	89	50	365	345																														
19	82	4	0	0	0	3	7	13	0	14	0	0	0	21	9	0	57	162	63																													
20	116	37	4	7	18	25	55	133	21	149	51	0	23	291	81	30	147	100	17	37																												
21	51	2	18	2	1	13	39	63	49	52	41	41	11	414	5	3	25	7	427	263	255																											
22	181	178	27	22	37	127	0	175	8	300	159	19	36	164	9	154	37	72	27	131	439	470																										
23	250	113	4	15	23	37	4	142	65	341	147	137	723	46	100	52	86	126	16	126	393	1051	743																									
24	386	217	26	25	36	173	125	141	102	100	79	350	20	23	20	13	418	283	0	0	0	0	0	825																								
25	50	38	12	2	11	44	5	3	4	24	12	15	50	24	7	12	86	11	2	6	1	90	25	114	13																							
26	108	59	10	5	43	48	3	20	13	93	15	5	24	4	11	18	166	4	3	3	1	6	4	84	8	400																						
27	197	91	51	9	5	126	38	25	20	54	75	120	19	50	32	70	120	25	2	75	1	105	2	174	42	8	24																					
28	162	39	17	13	25	26	16	78	60	108	36	2	100	24	35	12	91	10	2	3	2	248	14	74	2	50	3	26																				
29	168	74	49	8	0	40	61	38	31	20	9	111	81	51	14	58	99	1	3	41	12	106	2	3	4	1	60	50	39																			
30	380	153	8	60	55	203	180	98	105	335	81	161	4	6	5	130	21	78	2	3	30	190	20	30	52	105	94	112	30	5																			
31	105	5	4	10	10	60	5	25	22	40	73	48	3	10	2	18	30	14	3	3	8	16	12	9	11	3	5	37	12	145	4																		
32	141	92	35	30	21	52	35	66	40	99	123	44	314	64	2	49	41	19	6	102	9	3	7	45	7	25	65	53	21	77	33	74																	
33	339	64	32	59	118	75	16	92	85	77	3	122	6	27	12	26	135	151	13	22	51	204	50	96	4	384	60	145	68	309	110	73	288																
34	145	108	70	84	44	69	123	135	66	82	73	171	311	69	93	27	86	26	103	57	21	22	133	118	2	25	71	113	96	66	53	90	131	145															
35	272	128	26	142	57	63	13	100	245	208	178	16	7	17	73	139	68	7	5	7	228	207	46	76	48	163	53	116	64	115	202	77	249	268	254														
36	281	86	9	25	7	50	7	160	71	41	54	8	7	8	4	60	83	90	0	46	3	5	3	5	6	5	60	5	10	93	31	50	220	88	35	293													
37	41	53	9	10	2	14	2	35	20	20	8	5	5	6	2	10	12	22	0	22	2	4	2	5	3	1	28	1	4	10	3	25	13	24	22	32	18												
38	16	4	0	141	50	3	0	6	13	7	10	0	0	0	0	6	5	87	0	0	8	0	0	0	6	5	5	4	3	7	8	83	13	14	11	0	0	240											
39	22	24	21	3	1	1	18	17	14	23	4	4	0	52	110	8	29	2	20	0	0	0	6	6	3	0	0	4	0	1	1	3	27	23	4	50	25	0	9										
40	601	138	5	27	92	37	45	86	185	70	261	20	0	0	0	192	136	25	9	79	36	0	10	348	1	21	4	82	16	203	38	59	234	95	53	133	44	9	15	181									
41	443	21	41	11	3	25	1	16	55	73	27	15	100	16	96	35	108	80	21	220	39	5	32	74	12	127	140	225	2	25	60	16	107	72	20	62	36	5	28	52	70								
42	83	50	7	1	2	26	0	6	35	8	0	3	5	0	0	3	3	7	4	64	2	4	140	9	0	62	28	17	29	11	10	1	1	11	53	0	0	4	2	26	30	75							
43	365	130	27	18	33	101	52	27	42	291	8	8	14	16	7	64	73	181	21	13	12	486	161	229	6	55	5	15	5	201	85	32	202	100	181	143	40	42	171	697	60	40	230						
44	138	79	0	2	5	30	0	76	9	63	14	0	0	0	26	4	23	9	0	0	0	0	0	55	0	7	0	40	4	45	8	119	12	4	4	46	11	0	8	101	4	22	58	32					
45	89	2	8	0	0	0	0	12	2	0	0	72	0	0	0	0	18	135	0	0	0	0	0	507	9	50	25	94	33	20	19	12	65	11	38	5	5	299	6	99	54	4	74	5	39				
46	310	8	2	4	10	45	24	70	8	67	171	33	271	61	4	3	69	6	0	0	0	0	26	128	6	30	30	43	53	165	115	59	96	51	129	109	69	203	11	542	140	122	178	139	95	266			
47	210	60	7	15	36	63	0	44	30	3	0	0	235	0	56	6	24	0	0	170	0	0	8	7	9	30	40	43	1	30	8	54	97	48	148	90	30	95	101	353	18	84	293	5	4	100	25		
48	151	44	10	8	7	10	10	14	13	21	15	180	28	0	14	0	14	9	0	25	0	39	12	44	41	170	120	100	9	25	13	9	33	17	48	30	25	20	17	202	15	29	311	14	11	127	204	23		
Internal Trip Ends by Zone	12,098	3497	1178	2200	1929	3920	5439	6174	4470	7137	6091	4519	4436	4044	2208	3569	8625	4090	1267	2697	3590	6503	6943	7252	969	3285	2502	2629	1772	4294	1557	2524	5386	4144	5191	3295	816	1912	912	6024	3077	1273	6043	1285	1999	4750	2939	2327	184,976	92,488

EXTERNAL TRIPS

Stations	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Ext. Trip Crossings by Station	Total External Trips
50	198	99	35	4	28	39	11	73	56	66	17	21	48	36	4	41	36	13	6	0	7	22	36	70	23	54	79	148	80	79	49	90	168	276	263	914	1039	219	19	243	51	45	137	68	22	348	40	103	5,523	
51	144	44	13	8	17	10	5	31	31	16	40	13	49	21	9	12	22	28	9	0	0	17	20	24	5	25	13	37	23	38	27	22	41	114	122	474	15	62	15	151	29	21	44	25	2	90	18	53	2,049	
52	101	9	19	6	11	34	2	49	23	34	122	11	81	23	5	7	46	13	7	9	4	7	38	8	1	4	3	1	15	15	2	21	9	75	17	30	20	534	6	0	0	0	11	0	0	14	0	0	1,447	
53	138	43	16	21	6	11	12	12	24	5	32	14	65	15	3	15	17	28	5	6	3	9	14	21	10	25	20	38	19	37	45	21	97	27	56	1	5	9	43	851	24	29	69	23	5	235	12	14	2,250	
54	112	30	14	2	16	2	34	9	10	8	0	0	0	0	0	0	44	0	0	0	0	0	5	0	1	3	10	32	37	9	6	9	8	10	31	3	2	0	0	96	6	9	12	6	4	4	153	24	761	
55	170	35	32	17	28	40	24	18	7	12	34	11	41	35	10	17	42	17	0	0	4	7	26	0	3	12	23	43	72	28	8	16	78	163	15	56	10	0	6	50	6	24	40	5	4	225	443	22	1,977	
56	626	262	148	56	90	87	68	82	43	95	134	55	79	215	105	92	165	98	12	79	30	111	52	113	22	79	136	275	134	249	79	101	242	339	99	55	37	11	137	238	138	78	80	151	63	1249	32	9	6,992	
57	141	94	44	2	21	30	15	27	19	139	21	8	108	17	15	13	21	15	6	21	3	5	3	25	3	15	27	19	42	62	9	34	80	75	35	34	23	0	64	131	82	26	52	771	9	498	14	0	2,768	
58	100	48	13	3	13	9	11	9	7	0	5	5	10	11	0	23	8	10	0	0	8	14	8	0	4	39	126	83	32	33	22	19	47	35	11	14	1	0	9	20	61	2	6	391	32	42	4	0	1,348	
59	65	6	19	1	8	5	1	1	2	78	0	0	0	8	0	2	15	0	0	0	0	0	3	38	3	25	21	143	2	37	9	12	85	26	14	19	1	0	14	126	51	35	46	24	282	157	5	30	1,349	
60	53	20	14	1	2	15	0	6	0	210	0	0	0	12	0	11	6	4	0	0	0	0	0	18	2	1	2	2	2	0	0	0	23	3	0	0	0	0	0	0	0	0	0	6	175	0	0	0	378	
61	402	95	125	12	63	53	24	33	23	136	7	52	6	15	61	51	171	66	0	6	11	45	48	1466	23	11	70	31	37	23	3	17	39	109	11	22	16	5	4	31	18	1	4	13	3	38	0	0	3,395	
62	680	231	153	35	77	48	48	81	67	59	86	24	22	57	83	140	500	893	0	0	2	24	39	75	69	45	136	164	99	170	28	52	116	200	92	68	3	4	28	68	39	6	34	11	2	118	8	6	4,988	
63	173	11	3	1	12	61	20	92	31	122	98	47	80	82	39	13	10	465	48	58	72	193	193	0	2	6	6	8	2	8	7	4	9	23	20	27	16	6	2	4	9	0	4	0	0	14	3	0	2,104	
64	219	73	108	26	28	64	12	31	8	11	16	23	0	8	76	38	146	29	560	7	3	10	3	6	2	2	47	28	27	24	4	16	22	45	12	3	1	5	11	4	2	1	4	7	3	23	0	0	1,798	
65	131	14	17	12	23	35	15	16	11	30	7	27	12	42	34	2	48	18	0	1175	43	35	33	5	2	6	34	9	41	15	2	30	32	40	18	12	3	4	7	9	2	3	10	0	0	34	0	0	2,098	
66	320	38	54	9	18	40	38	67	26	48	67	44	93	99	20	57	68	50	9	1131	99	107	174	19	3	23	80	33	69	62	8	26	46	94	62	54	14	8	23	65	29	25	19	6	2	70	11	50	3,575	
67	62	17	14	1	1	2	2	3	17	3	5	5	9	21	23	3	9	12	0	8	285	19	19	0	1	1	1	1	10	1	1	6	2	14	3	7	2	0	0	0	0	4	10	0	0	13	0	0	617	
68	20	1	6	2	3	7	5	10	33	6	2	2	4	33	2	4	2	1	0	23	34	749	33	0	0	0	4	1	1	0	1	1	1	1	1	0	2	12	0	0	0	0	5	0	0	1	0	0	983	
69	847	250	108	82	85	153	114	405	300	244	628	201	218	357	156	176	288	173	40	118	300	1156	4067	163	35	156	226	228	94	159	85	133	173	194	234	214	50	70	57	119	157	66	65	86	90	309	25	89	13,743	
70	39	24	4	4	9	26	5	26	27	65	27	4	28	24	10	11	12	14	5	19	17	88	1201	56	1	39	2	18	7	36	8	18	15	9	22	77	25	30	4	24	17	24	4	18	22	36	10	0	2,209	
71	327	126	81	55	61	69	98	156	143	147	287	73	146	145	169	96	161	153	74	112	75	354	2173	171	42	37	70	63	19	56	34	48	46	64	84	47	33	13	32	58	37	13	21	28	39	99	10	20	8,465	
72	150	70	40	30	40	70	40	40	100	50	70	30	80	80	50	40	50	50	15	15	10	90	50	35	25	25	45	50	25	40	35	40	70	70	90	150	50	70	60	40	35	40	70	60	60	240	60	80	2,825	
73	281	100	50	10	40	40	30	40	60	60	60	25	35	55	40	40	30	20	10	10	15	70	70	20	20	30	90	80	40	70	55	30	75	75	100	160	50	60	60	100	50	100	100	15	15	180	100	100	2,966	
External Trip Ends by Zone	5499	1740	1130	402	700	950	634	1317	1038	1134	1765	695	1214	1411	914	904	1917	2170	806	2797	1025	3132	8308	2333	302	663	1271	1535	929	1251	521	766	1524	2141	1412	2441	1418	1122	601	2428	823	552	847	1714	834	4032	946	600	74,608	74,608
Internal Trip Ends by Zone	12,098	3497	1178	2200	1929	3920	5439	6174	4470	7137	6091	4519	4436	4044	2208	3569	8625	4090	1267	2697	3590	6503	6943	7252	969	3285	2502	2629	1772	4294	1557	2524	5386	4144	5191	3295	816	1912	912	6024	3077	1273	6043	1285	1999	4750	2934	2327	Total Ext. + Int. Trip Ends	Total Ext. + Int. Trips
Total Trip Ends by Zone	17,597	5237	2308	2602	2629	4870	6073	7491	5508	8271	7856	5214	5650	5455	3122	4473	10,542	6260	2073	5694	4615	9635	15,251	9585	1271	3948	3773	4164	2701	5545	2078	3290	6910	6285	6603	5736	2234	3034	1513	8452	3900	1825	6890	2999	2833	8782	1880	2927	259,584	167,096

THROUGH TRIPS

Stations	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	Total Thru Trip Crossings	Total Thru Trips
50																										
51	4																									
52	187	91																								
53	12	22	30																							
54	24	5	0	14																						
55	42	2	12	42	44																					
56	481	313	12	421	24	9																				
57	29	13	0	130	59	37	107																			
58	12	2	0	8	0	0	0	0																		
59	6	6	0	2	3	19	52	2	3																	
60	3	0	0	3	0	0	3	0	0	0																
61	12	6	10	10	3	0	10	0	0	0	0															
62	14	15	51	20	5	7	60	12	2	0	0	8														
63	115	35	39	25	31	13	34	17	0	0	0	0	5													
64	2	2	20	2	0	12	25	7	17	2	3	2	3	2												
65	2	1	10	5	8	2	9	5	0	2	3	5	1	12	0											
66	11	26	55	13	10	70	499	65	18	9	5	26	16	292	7	35										
67	3	0	4	2	0	0	17	0	0	0	0	0	0	32	0	20	21									
68	1	0	2	1	0	0	4	0	0	0	0	2	2	4	0	4	1	1								
69	8	6	61	7	3	102	489	209	54	33	3	183	267	3222	70	235	118	12	1							
70	4	2	3	16	0	0	17	4	3	0	0	12	5	95	4	10	9	0	1	67						
71	1	1	16	3	2	27	407	40	21	4	8	32	49	8786	26	48	147	10	2	24	54					
72	0	0	300	0	0	30	500	50	30	0	10	40	50	250	30	50	150	0	0	30	60	0				
73	155	40	195	20	30	0	35	20	0	0	0	0	0	0	0	0	200	0	0	300	0	585	17,015			
Thru Trip Crossings by Station	1128	592	1098	808	265	470	3528	806	170	143	41	361	592	13,009	236	467	1803	122	26	5,504	366	13,293	18,595	18,595	79,018	39,509
Ext. Trip Crossings by Station	5523	2049	1447	2250	761	1977	6292	2768	1348	1349	378	3395	4988	2104	1798	2098	3575	617	93	13,743	2209	6,465	2,825	2,966	Total Trip Crossings	Total Ext. + Thru Trips
Total Trip Crossings by Station	6651	2641	2545	3058	1026	2447	10,520	3574	1518	1492	419	3756	5080	15,113	2034	2565	5378	739	1009	19,247	2575	16,746	21,420	21,561	153,626	114,117

Table 10

Predicted 1990 Trip Movements

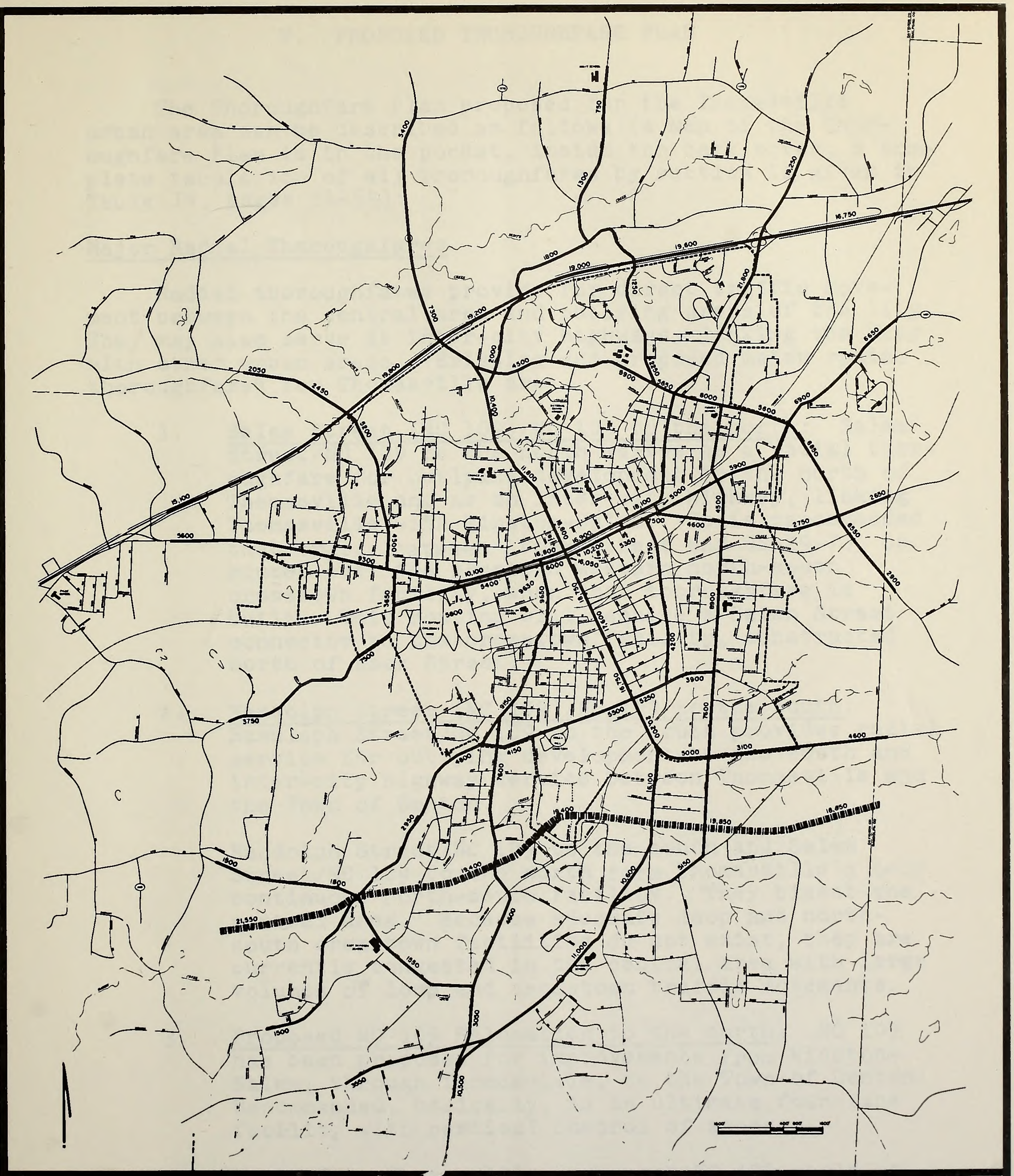
NOTE: Estimates of trip movements were prepared in 1964. More recent estimates of trip movements on I-85 are higher.

volumes are shown in Figure 10. A comparison of these volumes with the 1964 counted volumes (Figure 4) indicates that traffic congestion will become widespread and intolerable long before 1990 if major improvements to the 1964 system are not made.

1990 Thoroughfare Needs

Based on the analyses of the 1964 thoroughfare system and 1964 and predicted 1990 travel desires, development of the proposed Thoroughfare Plan for Thomasville was primarily concerned with:

1. The development of north-south crosstown thoroughfares with grade-separated railroad crossings.
2. The development of east-west crosstown thoroughfares.
3. The development of loop thoroughfares.
4. The development of an Interstate 85 connector to the west.


750
1300
3400
19,250
16,750
19,600
1800
19,000
1250
21,800
7300
19,200
2000
4500
8900
2250
3850
8000
6650
2050
2450
15,900
10,400
3800
6900
3800
11,800
6850
5900
15,100
18,100
5000
4500
2650
5600
4500
15,800
7500
4600
2750
6550
16,900
10,200
5350
9300
16,800
16,050
3750
10,100
6000
5400
9630
2800
3650
9550
16,750
6900
8900
5800
7500
11,800
4200
3900
3750
16,750
5250
9150
5300
7600
20,200
4600
4800
4150
5000
3100
7600
16,100
2950
16,400
19,850
16,850
1900
19,400
10,600
5150
1800
21,550
4600
11,000
1850
3050
1500
3550
10,500
LEGEND
EXISTING THOROUGHFARES
0000 ASSIGNED 1990 TRAFFIC VOLUMES
PLANNED I-85

1990 TRIPS ASSIGNED TO 1964 THOROUGHFARES
THOMASVILLE, N. C.

FIGURE 10

V. PROPOSED THOROUGHFARE PLAN

The Thoroughfare Plan proposed for the Thomasville urban area can be described as follows (a map of the Thoroughfare Plan is in the pocket, inside the back cover; a complete tabulation of all thoroughfares by section is given in Table 14, pages 51-54):

Major Radial Thoroughfares

Radial thoroughfares provide for direct traffic movement between the central area and outlying areas of the City. They may also serve as inter-city highways, linking the City with other urban areas. Existing and proposed major radial thoroughfares for Thomasville are:

1. Salem Street (NC 109)/NC 109 to the north: Salem Street/NC 109 to the north serves as a radial thoroughfare for outlying development to the north of Thomasville and as an inter-city highway, linking Thomasville with Winston-Salem. It is recommended that trips between Doak Street and US 29-70, be routed over the proposed western north-south crosstown facility, when that thoroughfare is built. This routing will require a Salem Street connector to the crosstown facility, constructed north of Doak Street.

2. Randolph Street (NC 109)/NC 109 to the south: Randloph Street/NC 109 to the south provides radial service for outlying development to the south and inter-city highway service between Thomasville and the Town of Denton.

   Randolph Street/NC 109 to the south and Salem Street/NC 109 to the north form Thomasville's only continuous north-south facility. They bisect the central area. Because adequate loop and north-south crosstown facilities do not exist, they are currently congested in the central area with large volumes of loop and crosstown traffic movements.

3. Proposed NC 109 Relocation to the north: NC 109 has been proposed for improvements from Winston-Salem, through Thomasville, to the Town of Denton. Recommended, basically, is an ultimate four-lane facility with partical control of access.

   North from Thomasville, proposed NC 109 would be relocated generally to follow an alignment somewhat to the west of existing NC 109. When constructed, this facility will divert most of the inter-city and inter-regional NC 109 traffic movements from the existing NC 109 facility.

4. Proposed NC 109 relocation to the south: South from Thomasville, proposed NC 109 would also be relocated. It would follow an alignment generally to the east of existing NC 109. This section of NC 109 is currently scheduled for construction.

5. West Main Street (south) (SR 2032)/Johnsontown Road (SR 2032): West Main Street (south)/Johnsontown Road serves as a radial thoroughfare for outlying development to the southwest.

6. East Main Street (south) (SR 2053)/Blair Street (SR 2053)/SR 2053: East Main Street (south)/Blair Street/SR 2053 functions as a radial thoroughfare for outlying development to the east. It also functions as an inter-city highway for some Thomasville-High Point traffic movements.

   East Main Street (south) and West Main Street (south) parallel the Southern Railway main line through the Thomasville central area. Since they form the only continuous east-west facility south of the railroad, they handle many crosstown traffic movements in addition to the radial traffic movements.

7. West Main Street (north) (SR 2123)/Lexington Avenue (SR 2123)/SR 2123: West Main Street (north)/Lexington Avenue/SR 2123 provides radial service for outlying development to the west. Together with US 29-70 to the west, it is currently the most important inter-city highway link between Thomasville and cities to the west and to the southwest.

8. East Main Street (north) (SR 2123)/National Highway/SR 2123/US 29A-70A: East Main Street (north)/National Highway/SR 2123/US 29A-70A serves as a radial thoroughfare for outlying development to the northeast and as an inter-city highway for most Thomasville-High Point traffic movements. East Main Street (north)/National Highway/SR 2123, together with US 29-70 to the east, currently serves as the most important inter-city highway between Thomasville and cities to the east and to the northeast.

East Main Street (north) and West Main Street (north) parallel the Southern Railway main line through Thomasville. By forming the only continuous east-west facility north of the railroad, they are congested by large volumes of crosstown and loop traffic movements combining with the radial traffic movements.

The six existing major radial thoroughfares discussed above are the most important facilities currently serving Thomasville. Congestion along these thoroughfares in the central area and at their confluence in the central business district results largely from the combining of loop and crosstown traffic movements. Feasible widening and operations improvements will permit a radial thoroughfare system sufficient in handling future radial traffic movements only if adequate loop and crosstown thoroughfares are constructed. A continued listing of existing facilities which are proposed to serve as major radial thoroughfares for outlying development follows:

9. SR 2054 to the east from the proposed Foster Street/Colonial Drive/Ridgecrest Street crosstown.
10. Coloniger Street (NC 62)/NC 62.
11. Holly Grove Road (SR 2010).
12. Jacob Street (SR 1792)/Jacob Street Extension (SR 1792).
13. Cox Avenue from proposed NC 109 crosstown to Unity Street/Mendenhall Road (SR 1774)/Burton Street extension (SR 1774)/proposed Burton Street extension-Hasty Mill Road connector/Hasty Mill Road.

Major Crosstown Thoroughfares

Crosstown thoroughfares provide a bypass route around the central area and serve as central area distributors by way of the intersections along them. Thomasville has no existing crosstown thoroughfares. Currently all traffic movements approaching the central area are routed directly into or through the central area on radial thoroughfares. To free the existing radial thoroughfares of crosstown traffic destined to the central area, four major crosstown thoroughfares are proposed. They are:

1. Proposed NC 109: A part of the proposed improvements to NC 109 is a relocation through Thomasville. This improvement would utilize a Julian Avenue/

Julian Avenue extension to the north alignment. The section between Hamby Creek and Guilford Street is currently under construction and will provide a grade separation of the Southern Railway main line. After construction has been completed, the Trinity Street railroad crossing and possibly the College Street railroad crossing should be closed.

In addition to providing a better NC 109 routing, the proposed improvements will give Thomasville a north-south crosstown facility to the east of the central area and a much safer crossing of the Southern Railway main line.

2. NC 109 Business/Fisher Ferry Street (NC 109 Business) from Corporate Limits to Bryant Street/ proposed Fisher Ferry Street extension from Bryant Street to Salem Street at US 29-70: NC 109 Business/Fisher Ferry Street currently functions as a radial thoroughfare for outlying development and as a NC 109 Business routing for some intercity traffic movements. It also provides access to abutting residential and industrial development.

   It is recommended that NC 109 Business/Fisher Ferry Street be extended northward, from its intersection with Bryant Street, to Salem Street near US 29-70. This project would provide a grade-separation with the Southern Railway main line. The Peace Street, Bowles Street, Hoover Street, and Loftin Street, and possibly the Fisher Ferry Street at-grade railroad crossing should be closed when the railroad grade separation is constructed.

   This proposed improvement will give Thomasville a north-south crosstown facility to the west of the central area. It will also provide a safer crossing of the Southern Railway main line.

3. Foster Street/ proposed Foster Street extension to Colonial Drive/Colonial Drive/proposed Colonial Drive extension to Ridgecrest Street/Ridgecrest Street/proposed Ridgecrest Street extension to SR 2054: Foster Street, Colonial Drive, and Ridgecrest Street are existing local streets. They provide access to abutting residential and industrial development.

   It is recommended that Foster Street, Colonial Drive, and Ridgecrest Street be connected and extended to SR 2054 to form a continuous east-west major facility.

This proposed improvement will give Thomasville an east-west crosstown facility south of the Southern Railway main line. Its effect will be a better distribution of traffic entering the central area and a diversion of some crosstown movements from West Main Street (south) and East Main Street (south).

4. Proposed Leonard Street Extension from Selem Street to Lexington Avenue/Leonard Street/proposed Leonard Street extension from Kern Street to Burgin Street/Burgin Street/proposed Burgin Street extension to Turner Street: Leonard Street and Burgin Street are existing local streets. They provide access service to established residential development.

   It is proposed that Leonard Street and Burgin Street be developed into an east-west major crosstown facility. This proposed improvement would require extending Leonard Street from Salem Street westward to Lexington Avenue; improving Leonard Street between Salem Street and Kern Street; extending Leonard Street from Kern Street eastward to Burgin Street; improving Burgin Street; and, extending Burgin Street to Turner Street. It is recommended that right-of-way for this proposed crosstown route be acquired as opportunities permit and that the facility be stage constructed as appropriate.

   This proposed crosstown facility will provide for a better distribution of east-west traffic to the north of the central area. It will also provide considerable relief from congestion along West Main Street (north) and East Main Street (north).

Major Loop Thoroughfares

Loop thoroughfares partially or completely encircle the city. By providing a circuitious routing around the city, they shorten travel times between outlying areas and keep loop traffic movements from congesting radial and crosstown thoroughfares. A city may have one or more loop thoroughfares, located any distance from the central area. Two major loop thoroughfares are proposed for Thomasville. They are:

1. East Holly Hill Road (SR 2060) from Randolph Street to Liberty Drive/Liberty Drive (SR 2055) from East Holly Hill Road to Turner Street/Turner Street (SR 2055) from Liberty Drive to Unity Street/Unity Street (SR 2051) from Turner Street to Culbreth

Avenue/proposed Unity Street extension from Culbreth Avenue to Pineywood Road/Pineywood Road (SR 2048) from the proposed Unity Street extension to Lexington Avenue/Pineywood Street/proposed Pineywood Street extension from Marylou Avenue to Kendall Mill Road/Kendall Mill Road (SR 2060) from the proposed Pineywood Street extension to West Holly Hill Road/West Holly Hill Road (SR 2060) from Kendall Mill Road to Randolph Street: West Holly Hill Road, East Holly Hill Road from Randolph Street to Liberty Drive, Liberty Drive from East Holly Hill Road to Turner Street, Turner Street from Liberty Drive to Unity Street, and Unity Street from Turner Street to Salem Street currently form a major loop thoroughfare to the north, east, and south of Thomasville's intensely developed area. Although this loop thoroughfare is discontinuous to the west, it serves many loop traffic movements that otherwise would add further congestion to the radial thoroughfares. The Kennedy Road/SR 2055-Liberty Drive facility routes loop traffic movements approaching Thomasville from the south onto the loop thoroughfare.

It is recommended that the loop thoroughfare be completed by constructing a Unity Street extension to Kendall Mill Road. It is also recommended that Turner Street be extended from Unity Street to National Highway.

The proposed loop thoroughfare improvement will give Thomasville a continuous major loop thoroughfare completely encircling the city. This loop thoroughfare will serve large volumes of loop traffic movements between outlying areas and loop traffic movements approaching the city on radial thoroughfares. Its importance will greatly increase with the expansion of the urban area. The proposed extension of Turner Street to National Highway will provide traffic movements approaching Thomasville on National Highway with easy access to the loop thoroughfare.

2. Unity Street (SR 2051) from Turner Street to Cucumber Road/Cucumber Road (SR 2051) from Unity Street to County Line Road/County Line Road SR 2051/proposed County Line Road extension to Lambeth Drive/Lambeth Drive (SR 2067) from Kennedy Road to Virginia Avenue/proposed Lambeth Drive extension to Lake Road/Lake Road (SR 2085) from NC 109 Business to proposed I-85/proposed

Lake Road extension from proposed I-85 to the proposed Pineywood Street extension to Kendall Mill Road: Growth trends in residential development indicate future major residential expansions to the south and to the east. It will be desirable to provide a loop thoroughfare to serve this expansion.

Existing facilities suitably located for development as a loop thoroughfare are Unity Street from Turner Street to Blair Street, Cucumber Road from Blair Street to County Line Road, County Line Road Lambeth Drive from Kennedy Road to Virginia Avenue, and Lake Road from NC 109 Business to Emanuel Church Road.

It is recommended that County Line Road be extended to Lambeth Drive, that Lambeth Drive be connected with Lake Road, and that Lake Road be connected with the proposed Pineywood Street extension to Kendall Mill Road.

This proposed improvement will provide a major thoroughfare for future development to the south and east of Thomasville. Together with Unity Street/proposed Unity Street extension to Pineywood Road/Pineywood Road/Pineywood Street/proposed Pineywood Street extension to West Holly Hill Road, it forms a continuous loop thoroughfare which will completely encircle the 1990 intensely development area of Thomasville.

Major Bypass Thoroughfares

Bypasses are highways that route through traffic movements around the intensely developed area of the city. They are sometimes necessary to expedite the movement of significant volumes of through traffic and/or to prevent through traffic movements from combining with large volumes of urban traffic movements. Two facilities will function as major bypass thoroughfares for Thomasville. They are:

1. Planned Interstate 85 (Currently Approved for Construction by the State Highway Commission): I-85 through the Thomasville study are is currently approved for construction by the State Highway Commission. The approved location and treatment of crossings streets and highways are shown on the Thoroughfare Plan Map. After construction, this planned facility will be the most important intercity highway serving Thomasville. However, through

the study area its major function will be that of a bypass.

2. US 29-70: US 29-70, through the study area, is the only existing bypass facility serving Thomasville. It currently carries major volumes of east-west through traffic around the developed area. US 29-70, to the west and to the east, also serves as Thomasville's most important existing inter-city highway, linking Thomasville with most of the other cities in the Piedmont Crescent Region. Although Interstate 85 will divert most of the longer through traffic movements (such as traffic movements between Charlotte and Greensboro) and external-internal movements (such as traffic movements between Charlotte and Thomasville), US 29-70 will continue to serve many of the shorter through traffic movements (such as traffic movements between Lexington and High Point) and external-internal traffic movements (such as traffic between Lexington and Thomasville).

Interstate 85 Connectors

After construction, I-85 will be Thomasville's most important inter-city highway. It is desirable that all areas of the city have quick and easy access to and from this facility. To provide this access, two I-85 connectors are planned and a third is proposed. The connectors are:

1. Randolph Street (NC 109): Randolph Street is an existing major radial thoroughfare. Approved plans for the construction of I-85 include a Randolph Street interchange. This interchange will permit Randolph Street to also serve as an I-85 connector to the central business district.

2. SR 1547 in Randolph County (Cucumber Road extension): SR 2051 (Cucumber Road) becomes SR 1547 in Randolph County. The approved I-85 interchange at the crossing of SR 1547 and I-85 will permit SR 1147 to serve as an I-85 connector to the east of Thomasville.

3. Proposed Lake Road extension to the proposed Fisher Ferry Street extension: An extension of Fisher Ferry Street to Salem Street near US 29-70 was proposed to provide Thomasville with a north-south crosstown facility to the west of the central area. A Lake Road facility between Emanuel Church Road and the proposed Pineywood Street extension to

West Holly Hill Road was proposed to complete a loop thoroughfare for development to the south. To provide an I-85 connector to the west of Thomasville it is recommended that the proposed Lake Road facility be extended from the proposed Pineywood Street extension to the proposed Fisher Ferry Street crosstown facility.

Minor Thoroughfares

Minor thoroughfares serve to move traffic between local streets and major thoroughfares. They may also serve to provide access to abutting development and to facilitate a minor through traffic movement. Facilities proposed to function as minor thoroughfares for Thomasville are:

1. Proposed West Guilford Street extension from Church Street to Lexington Avenue/West Guilford Street from Church Street to Salem Street/proposed West Guilford Street-East Guilford Street connector/ East Guilford Street from Salem Street to National Highway.

2. Proposed Amazon Street extension from Concord Street to the proposed Fisher Ferry Street extension/Amazon Street/proposed Amazon Street extension from Fisher Ferry Street to West Sunrise Avenue/West Sunrise Avenue from the proposed Amazon Street extension to Randolph Street/East Sunrise Avenue (SR 2056)/SR 2056/proposed SR 2056 extension from County Line Road to the Study Cordon.

3. Fisher Ferry Street (NC 109 Business) from the proposed Fisher Ferry Street Crosstown to West Main Street (south).

4. Winston Street/proposed Winston Street-Stadium Drive connector.

5. Memorial Park Drive (SR 2052) between Culbreth Avenue and East Main Street.

6. Taylor Street.

7. East Holly Hill Road (SR 2060) between Liberty Drive and Colniger Street.

8. Proposed New Facility between East Holly Hill Road and SR 2054.

9. Kendall Mill Road (SR 2060) between the proposed Pineywood Street Extension and Emanuel Church Road Near the Study Cordon.

10. Emanuel Church Road (SR 2060 and SR 2087) between Lake Road and Kendall Mill Road and between Kendall Mill Road and Study Cordon.

1990 Travel Assigned to the Thoroughfare Plan

The predicted 1990 travel desires were assigned to the proposed Thoroughfare Plan in the same manner as that described in Chapter IV. The resulting traffic volumes are shown "posted" in Figure 11. The importance of the new thoroughfares is demonstrated by the balanced volumes assigned to these new facilities and to existing thoroughfares. Volumes on all facilities can be held to a reasonable traffic level through the 1990 design year by a stage development of the Thoroughfare Plan.

Design Standards

Level of Service

The level of service provided by any street or highway is a function of the ease of movement experienced by motorists using the facility. The ability of a motorist to drive at a desirable speed is dependent upon the physical design of the street; the amount and character of traffic on the street; the spacing of intersections and use of traffic control devices; the influence and character of traffic generated by abutting property; and imposed speed restrictions. The level of service provided is generally indicated by the overall travel speed[2] experienced by traffic.

Recommended minimum levels of service are generally as given in Table 11. The overall speeds given should be attainable when all components of the urban thoroughfare system are intergrated into a network which conforms to the major travel desires of the street users. The level of service to be provided by a specific highway improvement should be compatible with both the desires of the motorists and the economic aspects of the proposed improvement.

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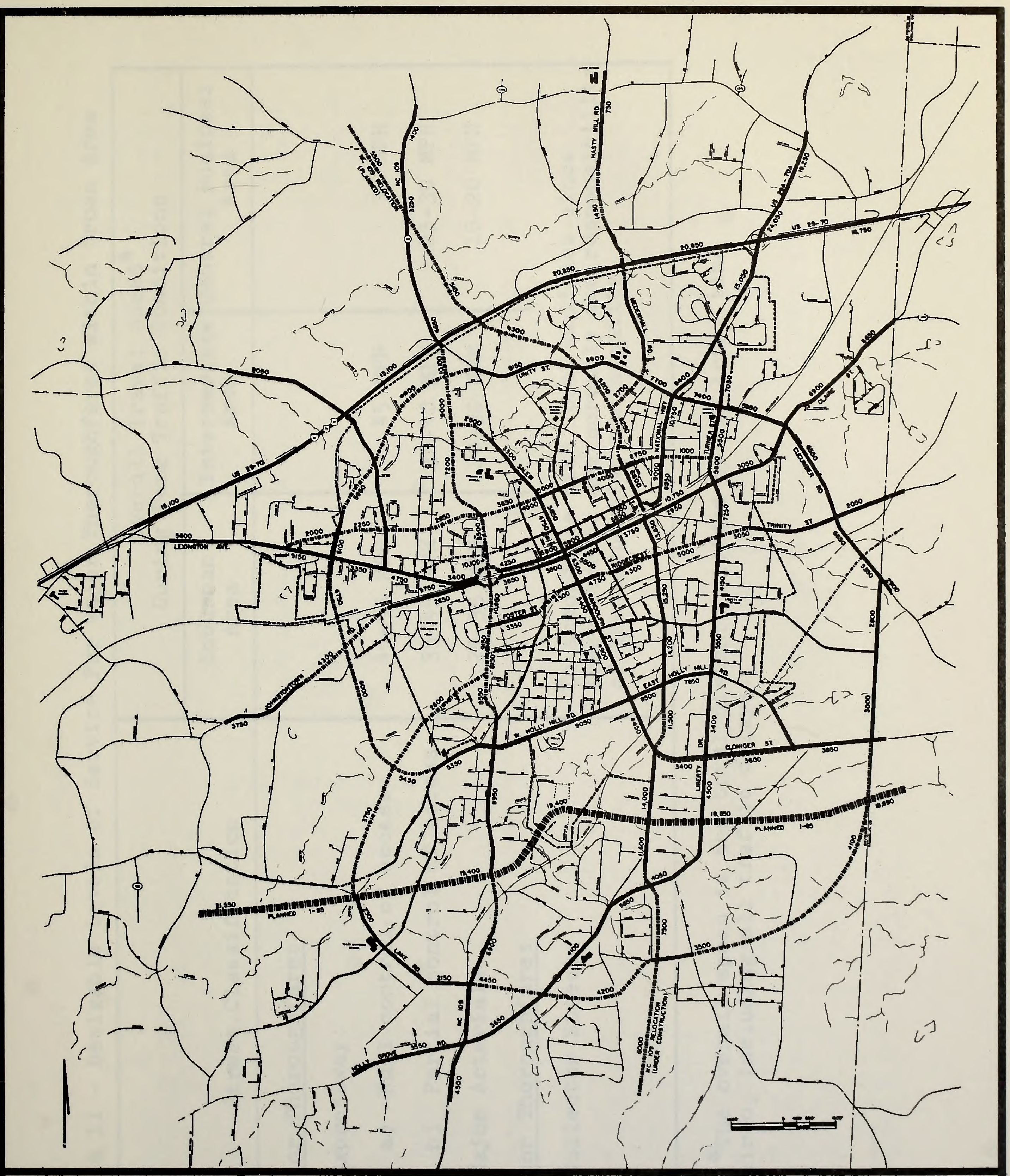
[2] The overall travel speed is the total distance traversed divided by the total travel time required, including all delays.


US 29-70
20,850
16,750
15,100
US 29A-70A
HASTY MILL RD.
NC 109
NC 109 RELOCATION (PLANNED)
UNITY ST.
NATIONAL HWY
TURNER ST.
SALEM
LEXINGTON AVE.
TRINITY ST.
CLUCUMBER RD.
CLARE ST.
RIDGECREST
FOSTER ST.
JOHNSONTOWN
EAST HOLLY HILL RD.
W. HOLLY HILL RD.
CLONIGER ST.
LIBERTY DR.
PLANNED I-85
19,400
18,850
21,550
LAKE RD.
HOLLY GROVE
NC 109 RELOCATION (UNDER CONSTRUCTION)

LEGEND:

ASSIGNED TRAFFIC VOLUMES	0000	
	EXISTING	PROPOSED
MAJOR THOROUGHFARES	▬	▬·▬
MINOR THOROUGHFARES	—	-·-

1990 TRIPS ASSIGNED TO RECOMMENDED PLAN
THOMASVILLE, N. C.

FIGURE 11

NOTE: Estimates of trip movements were prepared in 1964. More recent estimates of trip movements on I-85 are higher.

Table 11 - Desirable Levels of Service For Major Thoroughfares Within Urban Area

Street Classification	Overall Travel Speed[a] During Peak Traffic Conditions		
	Suburban Area	Intermediate Area	Central Business Area
Major Thoroughfares			
Expressway:			
a) Full control of access	45-55 MPH	45 MPH	35 MPH
b) Partial control of access	35-45 MPH	30-40 MPH	25-30 MPH
Major Arterials:	25-35 MPH	20-30 MPH	10-20 MPH
Minor Thoroughfares			
Collector Streets	In accordance with local policies since these streets are normally the responsibility of the respective municipality.		

[a] The overall speed is the total distance divided by the total time required, including all traffic delays.

Geometric Design Standards

Table 12 gives typical speed, curvature, and grade standards for major and minor thoroughfares in developed and outlying areas. Major thoroughfares should be designed to permit running speeds of 30 to 40 miles an hour. This requires design speeds of 40 to 70 miles an hour. Design speeds of 20 to 30 miles an hour, are desirable on minor thoroughfares.

The horizontal curvature of a thoroughfare is limited by design speed and rate of superelevation (about 0.08 foot-per-foot maximum in the Thomasville area). Maximum curvature of 3 to 12 degrees is recommended for major thoroughfares. Minor thoroughfares may have curvatures up to 23 degrees.

Maximum desirable grades vary from 4 to 7 percent for major thoroughfares and from 7 to 8 percent on minor thoroughfares.

Design Capacity

Many factors determine the traffic capacity of a thoroughfare; i.e., the number of vehicles that a thoroughfare can accommodate. Typical capacities for various thoroughfare cross sections are related here for general guidance. Table 13 indicates typical capacity standards for various types of facilities in terms of vehicles per hour per lane and total vehicles per day.

A typical two-lane thoroughfare with parking on both sides can accommodate a practical maximum of 5700 to 8200 vehicles per day with two-way operation. One-way operation of this facility would permit a practical capacity of 10,000 to 13,000 vehicles per day. With four lanes and no parking, it could be expected to accommodate a practical maximum two-way volume of 13,000 to 18,000 vehicles per day. Through such special measures as providing a median and separate turn lanes at intersections, its practical capacity can be increased to about 26,000 vehicles per day.

Freeways can be designed with a lane capacity two to three times as great as the lane capacity of a normal thoroughfare. This results in possible urban freeway lane volumes of 1200 to 1500 vehicles per hour. Thus, a four-lane freeway can serve 35,000 vehicles per day. An expressway must be designed with lower lane volumes because of its less strict access controls (some at-grade intersections). A four-lane expressway, however, can accommodate daily volumes of 23,000 to 33,000 vehicles.

Table 12 - Geometric Design Standards

DESIGN ELEMENT	MAJOR THOROUGHFARES			MINOR THOROUGHFARES
	FREEWAY	EXPRESSWAY	ARTERIAL	
DESIGN SPEED				
Outlying Areas	70 MPH	60 MPH	50 MPH	40 MPH
Developed Areas	60 MPH	50 MPH	40 MPH	30 MPH
MAXIMUM CURVATURES				
Outlying Areas	3 Degree	5 Degree	8 Degree	12 Degree
Developed Areas	5 Degree	8 Degree	12 Degree	23 Degree
MAXIMUM GRADES				
Outlying Areas	4 Percent	5 Percent	6 Percent	7 Percent
Developed Areas	5 Percent	6 Percent	7 Percent	8 Percent
SURFACE TYPE	High	High	High	Intermediate
NUMBER OF TRAVEL LANES	4 Minimum	4 Minimum	2 Minimum	2 Minimum
DESIRABLE LANE WIDTHS	12 Foot	12 Foot	12 Foot	12 Foot
USABLE SHOULDER WIDTHS	10 Foot[a]	12 Foot[a]	As Req'd.	As Req'd.
CURB AND GUTTER	Where Required	Where Required	Where Required	Where Required
SIDEWALK	-	Where Required	Both Sides	Both Sides
RIGHT OF WAY WIDTH	150 Min.	120 Min.	80 Min.	60 Min.
ACCESS CONTROL	Full	Partial	None	None
STRUCTURAL DESIGN LOAD	H20-S16	H20-S16	H20-S16	H20-S16
STRUCTURE WIDTH				
Under 250 Feet	Pav't. + 10' Rt. + 6' Lt. - (Pav't. + 4' S/W)			
Over 250 Feet	Pav't. + 5' Rt. + 5' Lt. - (Pav't. + 4' S/W)			
VERTICAL CLEARANCE	22.5 for Railroads, 16.25 for Interstate, 15.25 for all others			

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[a] When used in lieu of curb and gutter.

It must be emphasized that the capacities given in Table 13 are for guidance only. Seemingly minor differences in actual conditions for a specific thoroughfare can greatly change the capacity from that given. For example, a four-lane thoroughfare operating with 9 percent peak hour volume and 55 percent directional distribution, instead of a 10 percent peak hour volume and a 65 percent directional distribution, might accommodate 21,000 per day, instead of 16,000 as given in Table 13.

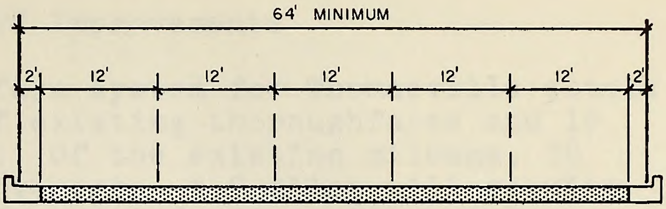
Table 13 - Typical Capacity Design Standards

Facility	Practical Capacity	
	Vehicles Per Hour Per Lane	Vehicles Per Day
Two Lanes Plus Parking		
Two-way	400-500	5,700- 8,200
One-way	450-600	10,000-13,000
Four Lanes, No Parking		
Two-way	450-550	13,000-18,500
Two-way with special measures	600-800	17,000-26,000
Six Lanes, No Parking		
Two-way with special measures	500-700	21,000-34,000
Four Lane Urban Expressway	800-1,000	23,000-33,000
Four Lane Urban Freeway	1,200-1,500	35,000-50,000
Six Lane Urban Freeway	1,200-1,500	50,000-75,000

NOTE: These typical capacities are based on average traffic flow characteristics with 10 percent of the 24-hour volume during the peak hour and 60-70 percent peak hour traffic in the predominant direction. For intersections the green time has been assumed at 50 percent.

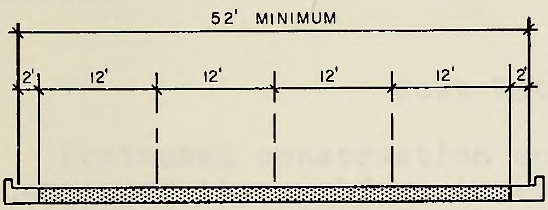
Recommended Cross Sections

Typical cross section recommendations for the various elements of the proposed Thoroughfare Plan are shown in Figure 12. Cross section A and B are typical for major thoroughfares in urban areas. Cross section C is typical for minor thoroughfares in urban areas. Cross section D is normally used for lower volume roads in fringe areas and quite often as an initial stage in the development of sections similar to A and B.


64' MINIMUM
2'
12'
12'
12'
12'
12'
2'

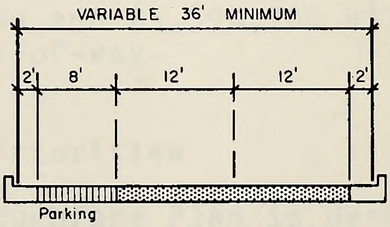
FIVE LANES—URBAN

(A)


52' MINIMUM
2'
12'
12'
12'
12'
2'

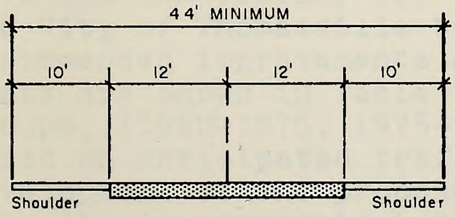
FOUR LANES—URBAN

(B)


VARIABLE 36' MINIMUM
2'
8'
12'
12'
2'
Parking

TWO LANES—URBAN
PARKING ON ONE SIDE

(C)


44' MINIMUM
10'
12'
12'
10'
Shoulder
Shoulder

TWO LANES—RURAL

(D)

TYPICAL CROSS SECTION RECOMMENDATIONS

FIGURE 12

Recommended Improvements

The proposed thoroughfare system for Thomasville totals about 71 miles—52 miles of existing thoroughfares and 19 miles of new thoroughfares. Of the existing mileage, 38 miles will require no improvements, 4.5 miles will require minor widening improvements, and 9.5 miles will require major widening improvements. The required improvements, in terms of the existing and proposed roadway cross section, are given in Table 14 under "Existing Section" and "Proposed Section."

Cost Estimates

Estimated construction and right-of-way costs for each recommended thoroughfare improvement are given in Table 14 under "Estimated Cost." These estimates are based on 1968 cost levels. They indicate that a total expenditure, through 1990, of about $17,238,000 will be required to implement the Thoroughfare Plan. Of this total, $11,648,000 will be required for construction and $5,590,700 will be required for the purchase of right-of-way.

Construction Priorities

Although the proposed Thoroughfare Plan is deemed the most economical plan which can adequately handle the expected 1990 travel demands, it would be prohibitively expensive and unnecessary for the State Highway Commission and the City of Thomasville to undertake the construction of all recommended improvements at once. Therefore, the improvements are shown in Table 14 separated into four priority groups, (1960-1975, 1975-1980, 1980-1985, and 1985-1990) based on anticipated traffic service needs, for a staged development of the proposed thoroughfare system. First priority improvements total $5,828,000; second priority improvements total $4,981,500; third priority improvements total $3,791,200; and fourth priority improvements total $2,638,000.

g Section		Proposed Section		Estimated Cost		
y	R.O.W.	Roadway	R.O.W.	Constn.	R.O.W.	Total
	60' - 30' 30' 33' 50' 36' 36' 35' -	52' C&G	100'-150'	1,656,100	1,375,000	3,031,000
	-	24'	350'	300,000	200,000	500,000
	Unknown -	36' C&G	60'	105,000	15,000	120,000
-side	60' 60'	52' C&G	80'	10,000	-	10,000
	-	36' C&G	60'	80,000	14,000	94,000
	- Unknown	52' C&G	80'	450,000	137,000	587,000
	50' - 60'	24' 24'	100' 80'	500,000	1,760,000	676,000
	60'	64' C&G	80'	105,000	39,000	144,000
	-	36' C&G	60'	28,000	53,000	81,000
	60'	64' C&G	100'	450,000	135,000	585,000
Total First Priority Cost				3,684,000	2,144,000	5,828,000

Table 14 - Recommended Improvements

Project Description	Length	Existing Section		Proposed Section		Estimated Cost		
		Roadway	R.O.W.	Roadway	R.O.W.	Constn.	R.O.W.	Total
FIRST PRIORITY								
1. NC 109 Relocation								
From: Arthur Dr. To: Corporate Limits	820'	20'	60'	52' C&G	100'-150'	1,656,100	1,375,000	3,031,000
From: Randolph St. To: H-P. T. & D. RR	1460'	-	-					
From: H-P. T. & D. RR To: Holly Hill Rd.	750'	Soil	30'					
From: Holly Hill Rd. To: Broad St.	1320'	18'	30'					
From: Broad St. To: Warner St.	1400'	32' C&G	33'					
From: Warner St. To: Grey St.	460'	27' C&G	50'					
From: Grey St. To: H-P. T. & D. RR	200'	32' C&G	36'					
From: H-P. T. & D. RR To: Hamby Cr.	700'	35' C&G	36'					
From: E. Guilford St. To: Burgin St.	980'	24' C&G	35'					
From: Burgin St. To: US 29-70	6800'	-	-					
From: US 29-70 To: North Study Boundary	6500'	-	-	24'	350'	300,000	200,000	500,000
2. Turner Street Extension								
From: Unity St. To: Creek	1400'	Soil	Unknown	36' C&G	60'	105,000	15,000	120,000
From: Creek To: National Hwy.	700'	-	-					
3. National Highway								
From: Hyde St. To: Cedar Ln.	200'	30'	60'	52' C&G	80'	10,000	-	10,000
From: Cedar Ln. To: Turner St.	700'	50' C&G 1-side	60'					
4. Mendenhall Street Connector								
From: Mendenhall St. To: NC 109 Relocation	1700'	-	-	36' C&G	60'	80,000	14,000	94,000
5. Unity-Pineywood Connector/Pineywood Road								
From: Salem St. To: Sunset Dr.	6200'	-	-	52' C&G	80'	450,000	137,000	587,000
From: Sunset Dr. To: Lexington Ave.	1450'	18'	Unknown					
6. Pineywood Street/Pineywood-Holly Hill Connector								
From: Lexington Ave. To: Marylou Ave.	460'	Soil	50'	24'	100'	500,000	1,760,000	676,000
From: Marylou Ave. To: Cardinal Pl.	7500'	-	-					
From: Cardinal Pl. To: Fisher Ferry Rd.	1600'	18'	60'	24'	80'			
7. Randolph Street								
From: Royal Oaks St. To: H-P. T. & D. RR	1950'	21'	60'	64' C&G	80'	105,000	39,000	144,000
8. Winston Street Connector								
From: Winston St. at Holly St. To: Stadium Dr.	600'	-	-	36' C&G	60'	28,000	53,000	81,000
9. From: US 29-70 To: North Study Boundary	4500'	30'	60'	64' C&G	100'	450,000	135,000	585,000
			Total First Priority Cost			3,684,000	2,144,000	5,828,000

ng Section		Proposed Section		Estimated Cost		
ay	R.O.W.	Roadway	R.O.W.	Const.	R.O.W.	Total
	60' - 60' 40'	52' C&G	80'	530,000	185,000	715,000
	-	52'C&G	100'	310,000	180,000	490,000
	-	86' W/ Center Pier		750,000	-	750,000
	-	52'C&G	100'	775,000	167,000	942,000
	60'	24'	60'	72,000	-	72,000
	-	52'C&G	80'	160,000	16,000	176,000
	Unknown -	36' C&G	60'	173,000	217,000	390,000
	40' 40'	36' C&G	60'	75,000	90,000	165,000
	30' Unknown - 30' 40' - 30'	48' C&G	80'	807,000	475,000	1,282,000
	- - 60'	24' C&G				
Total Second Priority Cost				3,652,000	1,330,000	4,982,000

Table 14 (Continued) - Recommended Improvements

		Existing Section		Proposed Section		Estimated Cost		
Project Description	Length	Roadway	R.O.W.	Roadway	R.O.W.	Const.	R.O.W.	Total
SECOND PRIORITY								
1. Fisher Ferry Rd./Fisher Ferry Rd. Ext./Exist. NC 109								
From: Existing NC 109 To: Proposed Relocation	4800'	18'	60'	52' C&G	80'	530,000	185,000	715,000
Proposed Relocation at H-P. T. & D. RR	1800'	–	–					
From: Proposed Reloc. To: Holly Hill Rd.	4000'	18'	60'					
From: Holly Hill Rd. To: Rosedale Dr.	900'	18'	40'					
From: Rosedale Dr. To: S. Main St.	4400'	–	–	52'C&G	100'	310,000	180,000	490,000
From: S. Main St. To: N. Main St.	150'	–	–	86' W/ Center Pier		750,000	–	750,000
From: N. Main St. To: US 29-70	7400'	–	–	52'C&G	100'	775,000	167,000	942,000
From: US 29-70 To: NC 109 Relocation	2900'	20'	60'	24'	60'	72,000	–	72,000
2. Salem Street Connector								
From: Salem St. at Doak Pk. To: Fisher Ferry Rd. Ext.	1700'	–	–	52'C&G	80'	160,000	16,000	176,000
3. W. Guilford St Connector								
From: Winston St. To: Church St.	820'	24' C&G	Unknown	36' C&G	60'	173,000	217,000	390,000
From: Church St. To: Lexington Ave.	3000'	–	–					
4. Lexington Avenue								
From: Carr St. To: Jacob St.	1100'	22'	40'	36' C&G	60'	75,000	90,000	165,000
From: Jacob St. To: Bowles St.	1100'	26'	40'					
5. Foster St./Colonial Dr./Ridgecrest St./SR 2054								
From: F. Ferry Rd. Ext. To: Carmalt St.	500'	16'	30'	48' C&G	80'	807,000	475,000	1,282,000
From: Carmalt St. To: RR Spur	1250'	32' C&G	Unknown					
From: RR Spur To: Mock St.	1100'	–	–					
From: Mock St. To: Randolph St.	420'	27' C&G	30'					
From: Randloph St. To: School St.	700'	32' C&G	40'					
From: School St. To: Taylor St.	420'	–	–					
From: Taylor St. To: Morrison Ave.	720'	22' C&G	30'					
From: Morrison Ave. To: NC 109 Relocation	700'	–	–					
From: NC 109 Reloc. To: SR 2054	4000'	–	–	24' C&G				
From: Ridgecrest Con. To: Cucumber Rd.	1700'	18'	60'					
		Total Second Priority Cost				3,652,000	1,330,000	4,982,000

sting Section		Proposed Section				
adway	R.O.W.	Roadway	R.O.W.	Const.	R.O.W.	Total
	40' Unknown	52' C&G	80'	300,000	147,000	447,000
   &G 1-side	60' 40' 40' 40' 40'	36' C&G	60'	120,000	76,000	196,000
	-	24'	100'	360,000	246,000	606,000
	-	24'	80'	245,000	97,000	342,000
  &G 1-side &G 1-side &G &G &G	- 60' 60' 60' Unknown 30' Unknown Unknown 40' - 30' -	36' C&G	60'	444,000	189,000	633,000
  &G &G	- - Unknown - 25' Unknown -	36' C&G 52'C&G 52'C&G 52'C&G 52'C&G 52'C&G 52'C&G	60' 80' 80' 80' 80' 80' 80'	795,000	772,000	1,567,000
Total Third Priority Cost				2,264,000	1,527,000	3,791,000

Table 14 (Continued) - Recommended Improvements

Project Description	Length	Existing Section		Proposed Section				
		Roadway	R.O.W.	Roadway	R.O.W.	Const.	R.O.W.	Total
THIRD PRIORITY								
1. Holly Hill Road								
From: F. Ferry Rd. To: Randolph St.	4400'	18'	40'	52' C&G	80'	300,000	147,000	447,000
From: Randolph St. To: Liberty Dr.	2700'	18'	Unknown					
2. Liberty Drive								
From: Holly Hill Rd. To: Sunrise Ave.	1650'	19'	60'	36' C&G	60'	120,000	76,000	196,000
From: Georgia Ave. To: Tennessee Ave.	1000'	22'	40'					
From: Tennessee Ave. To: H-P. T. & D. RR	300'	24'	40'					
From: H-P. T. & D. RR To: Hamby Creek	500'	32' C&G 1-side	40'					
From: Hamby Creek To: Trinity St.	370'	28'	40'					
3. Lake Road Connector								
From: I-85 To: F. Ferry Rd. Ext.	8100'	-	-	24'	100'	360,000	246,000	606,000
4. Lake-County Line Connector								
From: F. Ferry Rd. To: NC 109 Relocation	6000'	-	-	24'	80'	245,000	97,000	342,000
5. Sunrise Avenue/Amazon Street								
From: County Line Rd. To: Cucumber Rd.	1400'	-	-	36' C&G	60'	444,000	189,000	633,000
From: County Line Rd. To: Duke St.	4300'	18'	60'					
From: Duke St. To: Pontiac Dr.	400'	31' C&G 1-side	60'					
From: Pontiac Dr. To: Liberty Dr.	720'	18'	60'					
From: Liberty Dr. To: Carter Dr.	560'	32' C&G 1-side	Unknown					
From: Carter Dr. To: Julian Ave.	1000'	18'	30'					
From: Woodlawn St. To: Taylor St.	400'	17'	Unknown					
From: Taylor St. To: Wood St.	500'	32' C&G	Unknown					
From: Wood St. To: Sunrise-Amazon Conn.	1200'	24' C&G	40'					
From: Sunrise Ave. To: Amazon St.	1700'	-	-					
From: F. Ferry Rd. To: Concord St.	1200'	24' C&G	30'					
From: Concord St. To. F. Ferry Rd. Ext.	300'	-	-					
6. Leonard Street/Burgin Street								
From: National Hwy. To: Turner St.	1500'	-	-	36' C&G	60'	795,000	772,000	1,567,000
From: Griffith St. To: National Hwy.	600'	-	-	52'C&G	80'			
From: Griffith St. To: NC 109 Relocation	630'	29' C&G	Unknown	52'C&G	80'			
From: Burgin St. To: Leonard St.	1150'	-	-	52'C&G	80'			
From: Kern St. To: Reid St.	450'	20'	25'	52'C&G	80'			
From: Reid St. To: Salem St.	1150'	32' C&G	Unknown	52'C&G	80'			
From: Salem St. To: Lexington Ave.	8200'	-	-	52'C&G	80'			
		Total Third Priority Cost				2,264,000	1,527,000	3,791,000

ng Section		Proposed Section		Estimated Cost		
ay	R.O.W.	Roadway	R.O.W.	Const.	R.O.W.	Total
l-side	36' 36' 60'	52' C&G	80'	400,000	251,000	651,000
l-side	60' 60'	36'C&G 52'C&G	60' 80'	250,000	22,000	272,000
	-	24'	80'	550,000	155,000	705,000
	Unknown	24'	60'	45,000	5,000	50,000
	-	24'	80'	150,000	85,000	235,000
	-	24'	80'	185,000	4,000	189,000
	-	24'	80'	90,000	8,000	98,000
	-	36'C&G	60'	378,000	60,000	438,000
Total Fourth Priority Cost				2,048,000	590,000	2,638,000
Total Cost All Priorities				11,648,000	5,591,700	17,238,700

Table 14 (Continued) - Recommended Improvements

Project Description	Length	Existing Section		Proposed Section		Estimated Cost		
		Roadway	R.O.W.	Roadway	R.O.W.	Const.	R.O.W.	Total
FOURTH PRIORITY								
1. Unity Street/Cucumber Road From: National Hwy. To: Hyde St. From: Hyde St. To: SR 2053 From: SR 2053 To: E. Study Boundary	 300' 3300' 6000'	 34' C&G 1-side 19' 18'	 36' 36' 60'	52' C&G	80'	400,000	251,000	651,000
2. Blair Street/SR 2053 From: Vivian St. To: Unity St. From: Unity St. To: E. Study Boundary	 1200' 4800'	 28' C&G 1-side 18'	 60' 60'	 36'C&G 52'C&G	 60' 80'	250,000	22,000	272,000
3. Lake-County Line Connector From: NC 109 Reloc. To: County Line Rd. at NC 62	11,000'	-	-	24'	80'	550,000	155,000	705,000
4. W. Main Street From: Finch St. To: Peace St.	1650'	18'	Unknown	24'	60'	45,000	5,000	50,000
5. W. Main Street Extension From: Peace St. To: Johnson Town Rd.	3500'	-	-	24'	80'	150,000	85,000	235,000
6. Mendenhall Grade Separation At: US 29-70	1200'	-	-	24'	80'	185,000	4,000	189,000
7. Mendenhall-Hasty Mill Connector From: Mendenhall St. To: Hasty Mill Rd.	2000'	-	-	24'	80'	90,000	8,000	98,000
8. Proposed Northeast Street From: Holly Hill Rd. To: SR 2054	8000'	-	-	36'C&G	60'	378,000	60,000	438,000
		Total Fourth Priority Cost				2,048,000	590,000	2,638,000
		Total Cost All Priorities				11,648,000	5,591,700	17,238,700

Parking

The relationship between parking and traffic operations is a critical one, particularly in the city's central area. On-street parking can greatly impede traffic flow over a street, causing delays, congestion, and accidents. The National Safety Council reports that 29.3% of all urban accidents in 1964 were directly related to parking. A parking deficiency creates congestion by forcing increased circulation and on-street loading and unloading of passengers.

A very limited parking study was made to determine whether or not there was a parking supply deficit in the central business district of Thomasville. Data obtained as to the existing supply is illustrated in Figure 13 and tabulated in Table 15. Table 16 contains parking supply standards as set forth in the book Parking in the City Center[3], applied to Thomasville's central business area. A comparison of the parking supply and parking need figures indicates that, at present, the supply is adequate. However, additional spaces will be needed as activity in the central area increases. By 1990, it is estimated that a minimum of 421 additional spaces must be supplied. On-street parking should be removed as warranted to improve traffic operations.

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[3] Parking in the City Center, Wilbur Smith and Associates, New Haven, Connecticut, 1965.

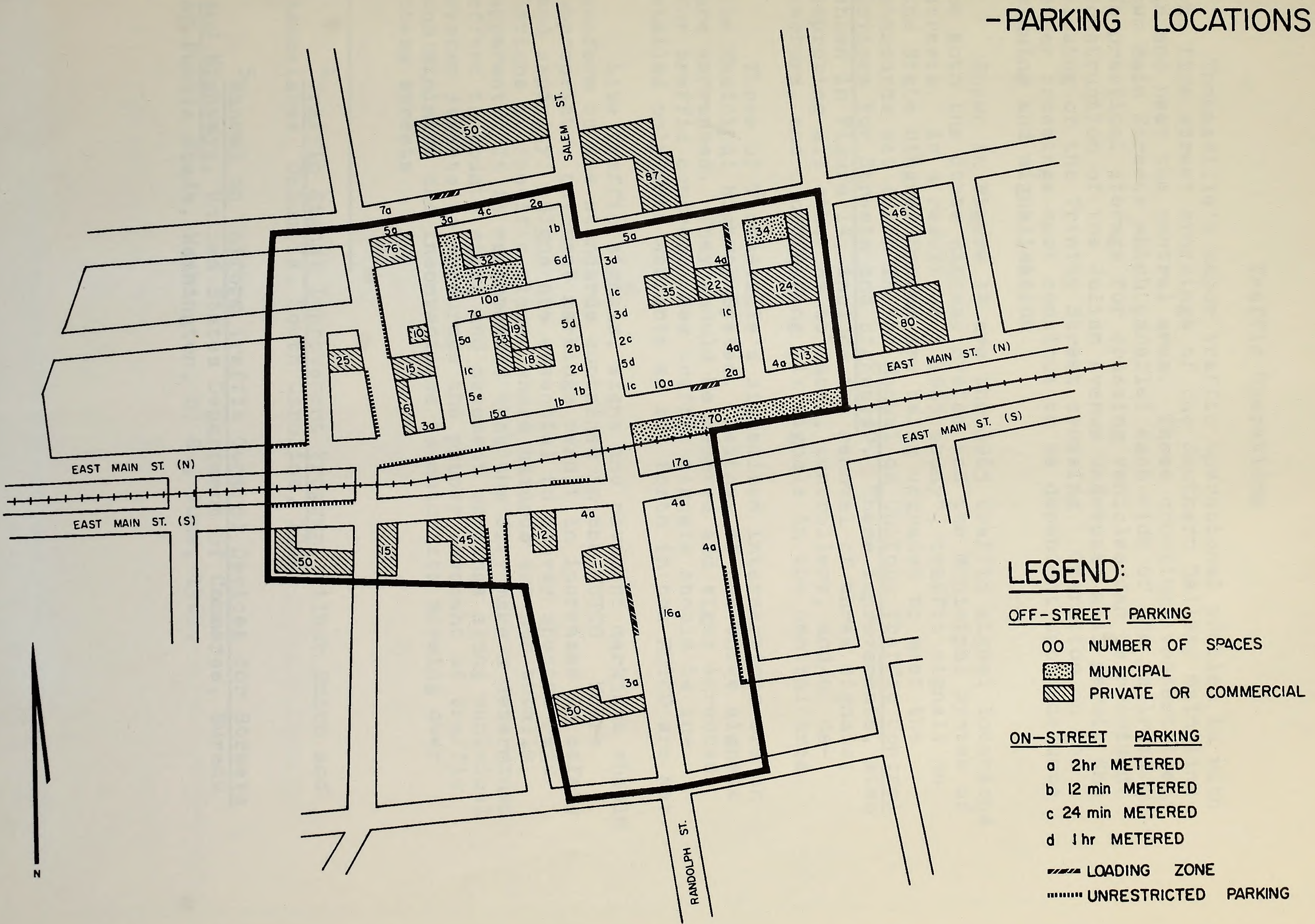
Table 15 - CBD Parking Inventory (1964)

Type of Parking	Number of Spaces
On-Street	
Unrestricted	90
2-Hour metered	220
1-Hour metered	31
24-Minute metered	10
12-Minute metered	6
Loading	10
Reserved	4
Total on-street supply	371
Off-Street	
Municipal lots (2-hour metered)	178
Commercial	206
Private Lots	650
Other	20
Total off-street supply	1054
Grand total supply	1425

Table 16 - CBD Parking Requirements

Demand Level	Number of Spaces	
	1964	1990
Desirable	1312	2235
Tolerable	1187	2033
Minimum	1081	1846

FIGURE 13
CENTRAL BUSINESS DISTRICT
-PARKING LOCATIONS-


SALEM ST.
EAST MAIN ST. (N)
EAST MAIN ST. (S)
RANDOLPH ST.
N
50
87
46
80
76
32
77
10
15
6
25
19
33
18
35
22
34
124
13
70
50
15
45
12
11
50
7a
5a
3a
4c
2a
1b
6d
10a
7a
5a
1c
5e
15a
5d
2b
2d
1b
1b
3a
5a
3d
1c
3d
2c
5d
1c
10a
4a
1c
4a
2a
4a
17a
4a
4a
4a
16a
3a
LEGEND:
OFF-STREET PARKING
00 NUMBER OF SPACES
MUNICIPAL
PRIVATE OR COMMERCIAL
ON-STREET PARKING
a 2hr METERED
b 12 min METERED
c 24 min METERED
d 1 hr METERED
LOADING ZONE
UNRESTRICTED PARKING

Traffic Operations

Thomasville's major traffic operational problem is with the five street crossings of the Southern Railway main line in and near the central area. These crossings connect the two Main Streets which parallel each side of the railroad. No practical storage for crossing vehicles can be provided. Construction of the Julian Avenue underpass will permit the closing of the Trinity Street crossing. Operation on the other crossings must continue to be dependent upon adequate signing and signalization.

Shown in Figure 14 are the 1965 traffic signal locations on both the State Highway System and the Municipal System of streets. As a result of a 1965 study[4]; traffic signals on the State Hihgway System are being upgraded to meet the standards set forth in the Manual on Uniform Traffic Control Devices for Streets and Highways[5]. These improvements, also shown in Figure 14, include the removal of three signals; improving all other as to faces, controllers, and/or detectors; and coordinating six signals in the central area.

Three of Thomasville's signalized intersections are on the Municipal Highway System. Neither of the three signals are warranted. They should be removed and signs errected for traffic control. New traffic signals should be installed only when warrants as set forth in the MUTCD are met.

Like traffic signals, signs and pavement markings should conform to the standards contained in the MUTCD. Where appropriate, pavement markings result in increases in safety and capacity. Signs are essential to convey special regulations at specific places where hazards are not totally apparent. It is recommended that the City make a determined effort to update signs and pavement markings along municipal system streets to encourage the proper movement of traffic and minimize the inconvenience to motorists moveing over these streets.

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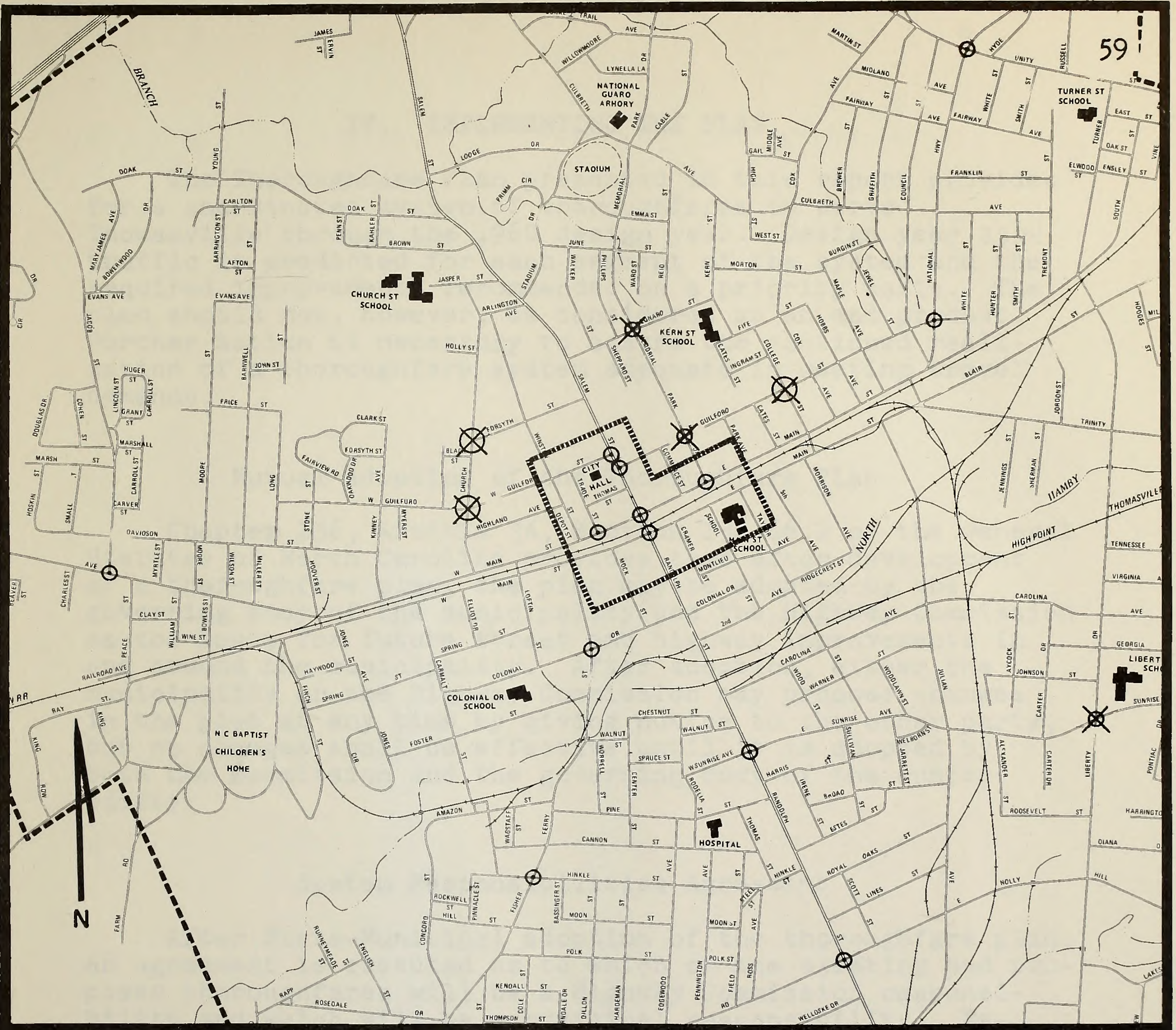
[4] Traffic Signal Improvement Program, Wilbur Smith and Associates, Columbia, South Carolina, 1966.

[5] Manual on Uniform Traffic Control Devices for Streets and Highways, United States Department of Commerce, Bureau of Public Roads, Washington, D. C., June, 1961.


NATIONAL GUARD ARMORY
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CHURCH ST SCHOOL
KERN ST SCHOOL
TURNER ST SCHOOL
CITY HALL
MAIN ST SCHOOL
COLONIAL DR SCHOOL
N C BAPTIST CHILDREN'S HOME
HOSPITAL
LIBERTY SCH
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MAIN
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SALEM ST
RANDOLPH
GUILFORD
HIGH POINT
NORTH
JIAMBY
THOMASVILLE
RAILROAD AVE
BRANCH

LEGEND:

⊙ IMPROVEMENTS RECOMMENDED AS TO FACES, CONTROLLERS, DETECTORS

× REMOVAL RECOMMENDED

▨ COORDINATED SYSTEM RECOMMENDED

○ MUNICIPAL SYSTEM SIGNAL

○ STATE SYSTEM SIGNAL

FIGURE 14

1600' 0 400' 800' 1600'

1965 TRAFFIC SIGNAL LOCATIONS AND RECOMMENDED IMPROVEMENTS

THOMASVILLE, N. C.

IV. IMPLEMENTING THE PLAN

The Thoroughfare Plan presented in this report provides for a coordinated system of thoroughfares to serve Thomasville through the 1960 design year. Design year 1990 traffic is predicted for each segment of the system and the required improvements recommended on a priority basis. The plan should not, however, be considered as an end product. Further action is necessary to assure the continued realization of a thoroughfare system adequate in meeting travel demands.

Mutual Adoption of the Thoroughfare Plan

Chapter 136, Article 3A, Section 136-66.2 of the General Statutes of North Carolina provides that after development of a thoroughfare plan, the plan may be adopted by the governing body of the municipality and the Highway Commission as the basis for future street and highway improvements in and around the municipality. After adoption, either the municipality or the Highway Commission may propose changes in the plan at any time by giving notice to the other party, but no changes shall be effective until it is adopted by both the Commission and the governing body of the municipality.

System Responsibilities Agreement

After State-Municipal adoption of the thoroughfare plan, an agreement is executed as to which of the existing and proposed thoroughfares will be a Highway Commission responsibility and which will be a municipal responsibility. Facilities which are designated a Highway Commission responsibility will be constructed and maintained by the Commission; however, the municipality will share in the right-of-way costs of each project with the municipality's share of the costs to be determined at the time of construction.

Legal Controls

Zoning Ordinance: The zoning ordinance is an important tool for both thoroughfare planning and general land use planning. It helps to insure the planned location and density of future development and leads to land use stability and subsequent traffic stability. This is a great help in thoroughfare planning as it provides a sound base for making traffic projections and planning thoroughfares.

A good zoning ordinance also sets standards for development which aid the traffic operation of major thoroughfares. For example, it should minimize strip commercial development—thereby reducing the tendency for a street to become a long parking lot or to have too frequent commercial entrances. It should also set standards for the provision of off-street parking by new development with the goal of eventual prohibition of all on-street parking on major thoroughfares. This would enable expensive street rights-of-way to be fully utilized in moving traffic.

Subdivision Ordinance: The subdivision ordinance is one of the few tools presently available that can be used for the advance acquisition of rights-of-way for future thoroughfares. The ordinance requires that, before improvement, the subdivider submit a subdivision plat for approval by the City Planning Commission and the various municipal departments. The plat is reviewed at that time for its conformance with the thoroughfare plan. Needed thoroughfare rights-of-way through the undeveloped property are acquired by dedication—or by purchase, if necessary—at that time. Through this process it is possible to reserve or protect streets which are a part of the Thoroughfare Plan and to encourage street construction that is in accordance with the plan.

Official Street Map: A municipality may, through special enabling legislation, adopt an Official Street Map which indicates both existing and proposed future street lines. Construction of new structures and improving existing structures within the designated future street lines are not permitted. The use of an Official Street Map reduces the cost of future thoroughfare improvements and holds property damage to a minimum.

Capital Improvements Program

A Capital Improvements Program is a priority listing of capital improvements that will be needed by a municipality during a time period, incorporated into a comprehensive Financial Plan. The Thoroughfare Plan can best be implemented by including those proposed thoroughfare improvements which become a municipal responsibility into the municipality's Capital Improvement Program. To this end, proposed improvements have been broken into priority groups and right-of-way and construction cost estimates have been made.

Advance Acquistion

Occasionally, the protection of a needed right-of-way from expensive development may be impossible except by purchase. In such cases, an Advance Acquisition Fund would be most useful. It is suggested that the municipality give consideration to the establishment of such a fund.

Urban Renewal

The urban renewal program, administered under the Federal Housing Act of 1954, as amended, is a three-fold attack on urban blight. It calls for the conservation of stable areas, the rehabilitation of declining areas, and the clearance and redevelopment of slum areas. A redevelopment project often times presents an opportunity for making improvements in an existing street pattern. Such an opportunity should not be overlooked.

Functional Designs

In order to protect needed rights-of-way and to obtain more accurate cost estimates of the proposed new facilities, the thoroughfare plan is being detailed to the extent that preliminary designs of the proposed facilities are being delineated on topographic mapping at a scale of 1" = 200'. These designs will more fully indicate the nature of the proposed improvements and be suitable for use in protecting the needed rights-of-way.

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